



FIFTH AVENUE TO ALASKA

BY

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(CHRIST CHURCH, OXFORD)

MEMBRE DU CLUB ALPIN SUISSE

WITH MAPS

BY

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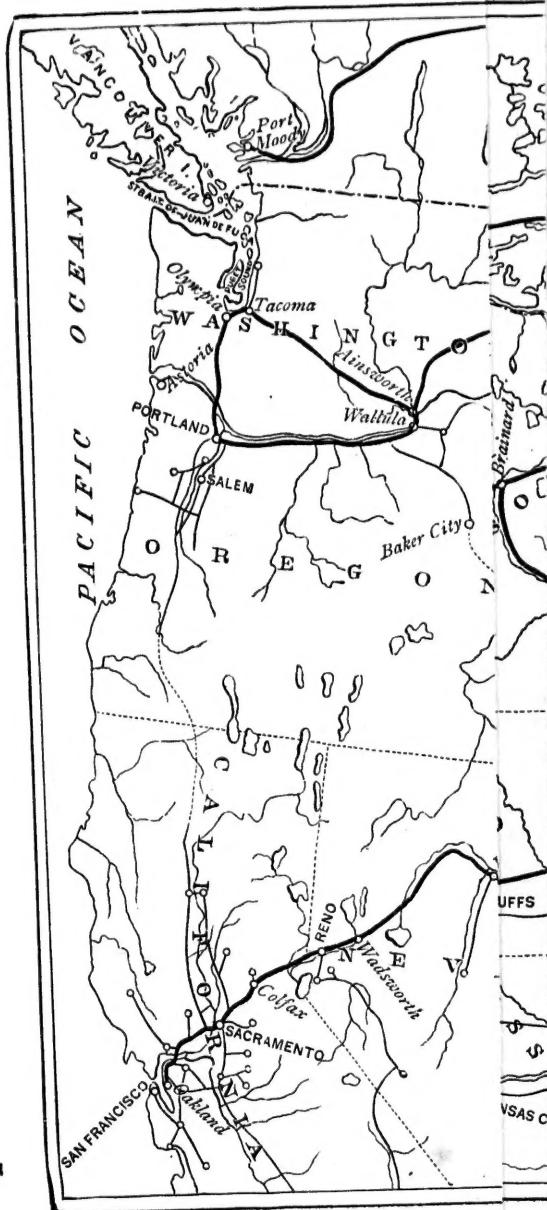
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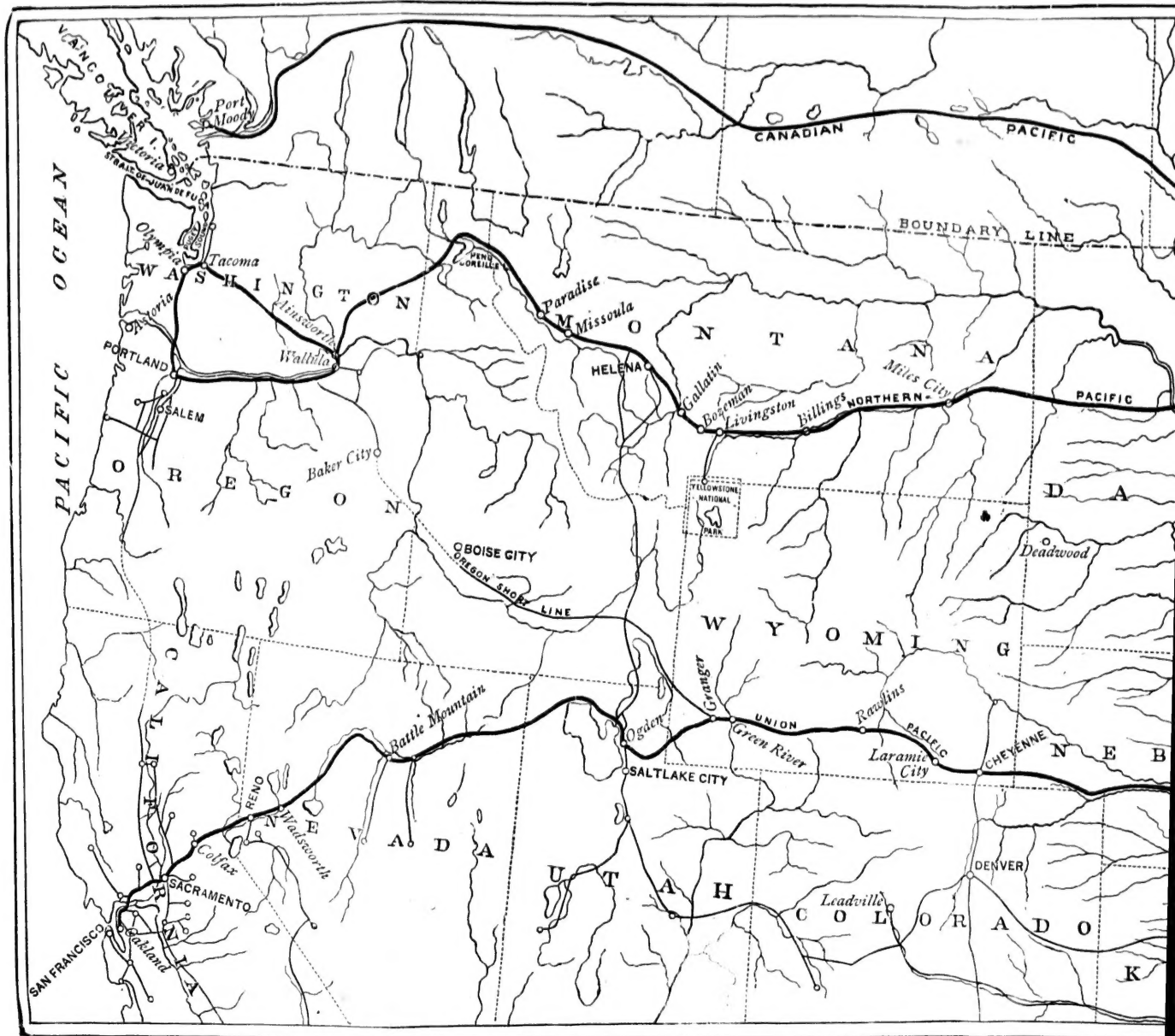
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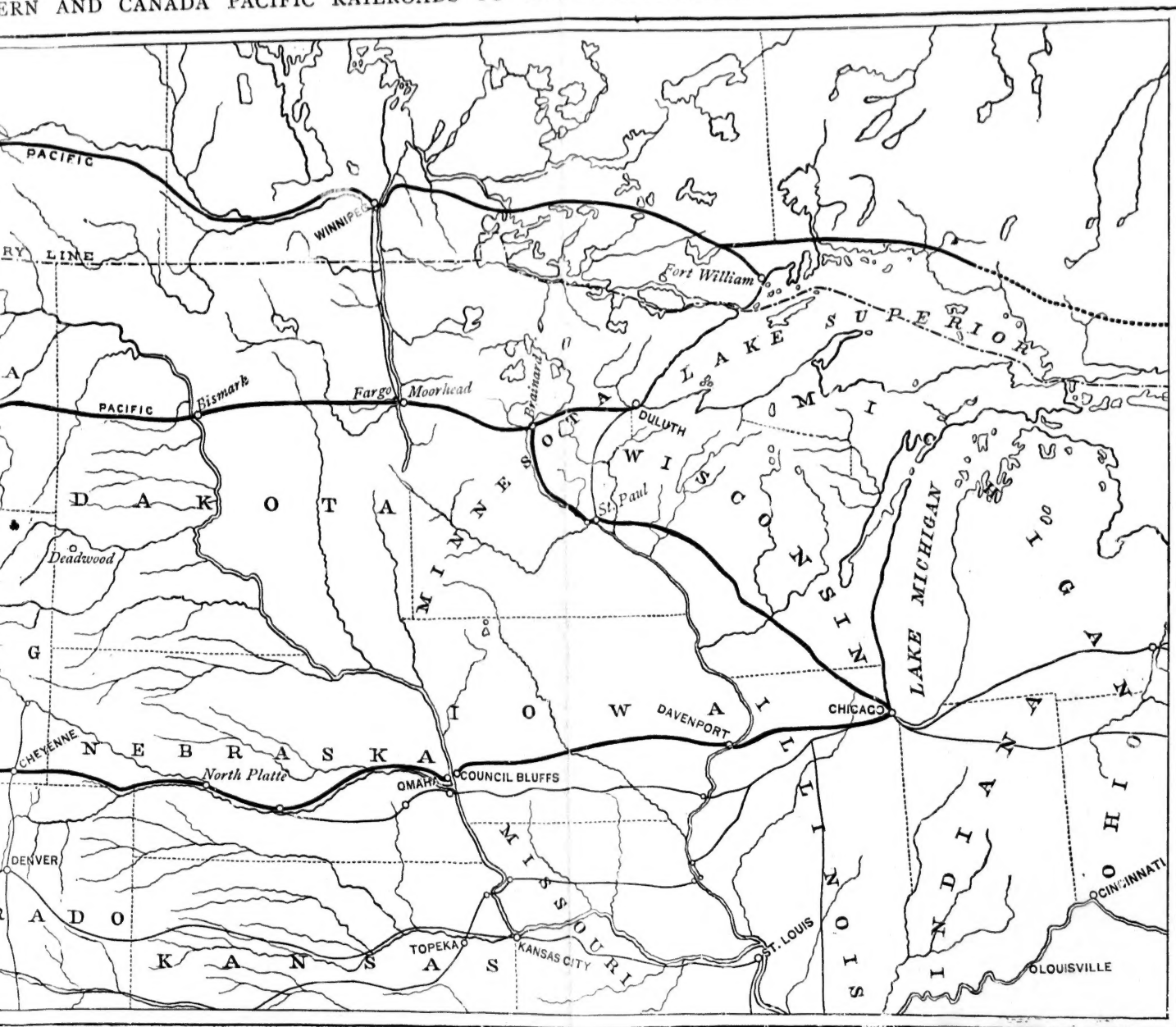
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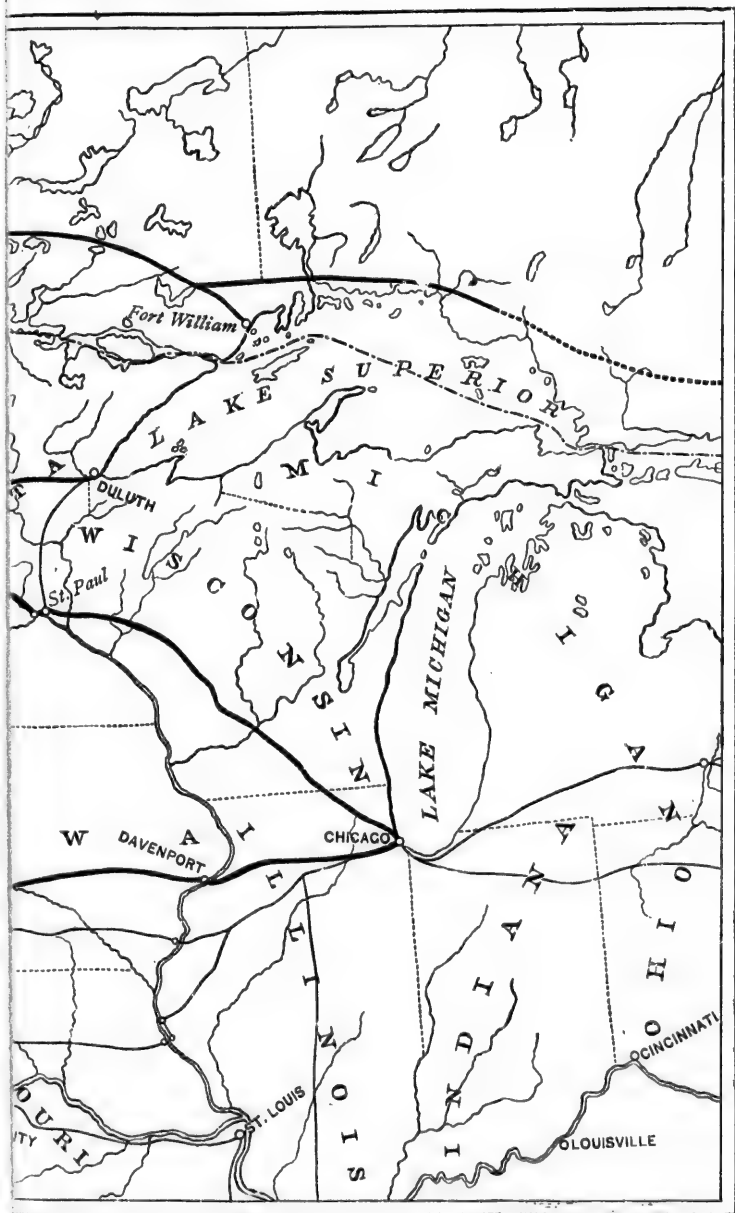


MAP SHOWING THE UNION, CENTRAL, NORTHERN AND CANADIAN



NO. 1.
ERN AND CANADA PACIFIC RAILROADS TO THE PACIFIC OCEAN.







FROM FIFTH AVENUE TO ALASKA.

CHAPTER I.

INTRODUCTION.

THE writer is quite aware that he needs an introduction since he wishes to be read, and is assured by everybody that an unknown author will not be read by anybody: But how to become a "known" author before one has published anything is the puzzle.

I take comfort, however, on remembering a remark of Mr. Gladstone, who said that if the maiden speech of Disraeli in the House of Commons, hissed down and ridiculed as it was, had been made by LORD BEACONSFIELD, it would have been considered a great oratorical effort.

I had seen something of the older civilization of Europe, and wanted to see the newer civilization of the Great West, and the savage life of our newly acquired "Russian Possessions."

CHAPTER II.

SUMMARY OF THE JOURNEY.

ON the last day of May, 1883, in company with my father, I left Fifth Avenue for Alaska.

We went by the Union Pacific Railroad to Ogden, and down to the Mormon city of Salt Lake, then back to Ogden, and by the Central Pacific Road to San Francisco. After visiting the Yosemite Valley, and the North and South groves of giant trees in Calaveras County, San Rafael, and Menlo Park, we passed from San Francisco Bay through the Golden Gate, and up the Pacific Ocean by steamer to Astoria; thence up the Columbia River to the junction of the Willamette River, and up the Willamette to Portland; thence up the Willamette Valley by the Oregon and California Railroad, two hundred and sixty-two miles, to Glendale, its present terminus; then back to Portland, and through Puget Sound to Victoria, and on through the British waters to Alaska, reaching a latitude where there was no night, and where the sun rose some four hours after he set. Hav-

ing sailed in the fiords, straits, bays, and inlets of Alaska, above two thousand miles, returning by way of Victoria and Puget Sound to Portland, where we took the Northern Pacific Railway, passing through the magnificent scenery of the great Columbia River, and continuing on that road until we reached Bozeman, where at Fort Ellis we took a government escort, and passed through the country seventy-five miles (camping out two nights) to Yellowstone Park. After making a tour of the park, I went into the "Goblin Land" of the Hoodoo Mountains in Wyoming, to shoot elk and "big-horn of the Rockies;" after which, by the branch road we went north to Livingston, and took the trunk-line of the Northern Pacific to St. Paul, and thence to New York by way of Chicago.

We were absent four months; and by rail, steamer, stage-wagons, and on horseback together, we travelled more than twelve thousand five hundred miles.

I kept full notes of each day; and from them I make up this book, in which I hope to give some information useful to those who may wish to visit the Pacific Coast, or to learn about it. Incidents and impressions I have endeavored to record with fidelity. But, travelling with my father, I was invited to the various dinners and entertainments given to him, where we met

many intelligent and some eminent men. I listened attentively to their varied conversations and discussions; and I dare say that the sentiments and opinions herein expressed are not original, but rather the filterings through my memory of what older and wiser men have said. We met while crossing the Rocky Mountains, at Salt Lake, and everywhere in California and Oregon, numbers of interesting men and attractive women, to whom we are largely indebted for the pleasure of a journey which would otherwise have been often weary and monotonous.

For references to the treaties, laws, and railroad grants, herein mentioned, I am indebted to the Hon. Edwards Pierrepont.

In going from New York to San Francisco by the Pennsylvania Central, the Chicago, Burlington and Quincy, and the Union and Central Pacific roads, the distance is 3,281 miles. The difference in time between the two cities is three hours and fourteen minutes.

CHAPTER III.

FROM NEW YORK TO OMAHA, AND FROM OMAHA TO SALT LAKE.

LEAVING New York by the Pennsylvania limited express train, we reached Chicago in twenty-five hours and forty minutes.

The key of my bedroom at the Palmer House had a piece of lead six inches in length arranged at right angles, and so cleverly fastened that it was impossible to secrete it. Inserting part of it in my pocket, I entered the billiard-room, where it was mistaken for a six-shooter ostentatiously protruding; and, becoming an object of apparent suspicion, I quickly left it at the office.

Chicago is a remarkable place, about which I shall have something to say hereafter.

Mr. Wallace, the general agent of the Chicago, Burlington, and Quincy Railroad, took us over their very large and solid building, in which all the chief offices of this great road are combined. The building is remarkably well constructed. We were indebted to Mr. Wallace for many courtesies.

We took that road at two o'clock P.M., the next day, and arrived at Burlington late in the evening. Crossing the Mississippi, which divides Illinois from Iowa, we reached Council Bluffs the next morning. We found the place greatly damaged by a flood which had swept away bridges and destroyed several lives.

The train was admirable in equipment, with the best of sleeping and dining-room cars; and the road was in perfect condition.

Council Bluffs is on the east bank of the Missouri River, which divides Iowa from Nebraska. The Union Pacific road commences on the east bank, Omaha being on the west. Here are excellent arrangements for the transfer and checking of baggage. No guns were allowed in the cars, but arrangements were made to carry them safely in the baggage-room.

The bridge at Omaha, across the Missouri River, is 2,750 feet long, built on twenty-two hollow iron columns, eight and a half feet in diameter, sunk to the bed-rock of the river.

We found on the Union and Central Pacific roads, through the entire length, the most careful and courteous attention from every officer and every employé of the roads; and a surly answer, or coarse conduct, we never once experienced. The meals at the roadside inns

were not good ; but any lack of politeness, or willingness to impart information or give assistance, we never met.

At Omaha, a town of more than forty-five thousand inhabitants, we checked our baggage for Salt Lake City, and started by the Union Pacific road at nine o'clock on the 3d of June.

On the train I met an Englishman of the Seventh Fusileers, a Mr. S——, who lived near Oxford ; and we, in company with several New-Yorkers who joined in the chorus, revived memories of the "Varsity," by singing portions of "John Peel," "Drink, puppy, drink," and other melodious refrains, until the other passengers thought we were a small detachment of the Salvation Army. S——, with H—— and I—— of New York, were all going to leave the train at Cheyenne, to go into that business which has enticed so many plucky fellows from both England and the Eastern States ; namely, to begin a rough life of boisterous good health in the bracing air of the great grazing plains of Wyoming. The hardy life one follows there has its many drawbacks, arising from the lack of cultivated society, and from having to undergo the hardships of cold nights, biting blizzards, furious hurricanes, and occasional destruction of property. As a counterbalance against these, we have health and vigor restored

to many a jaded idler of society; and he who was once a gay member of the "Knickerbocker," "Union," "White's," or "Boodle's," a frequenter of the "Burlington," a haunter of the "Aquarium," or a dissolute dashing guardsman (Ouida's model Englishman), the darling of society, and the best of riders, — he it is who, through lack of means, or dearth of excitement, chooses the wild life of the cattle-driver, with no music but the roar of the wind or the dash of cataracts, and no partner in the dance but his Indian pony.

The cowboy of whom I have heard and read so much is not always the dare-devil depicted in "The Police News;" for during my whole journey from Omaha, during which time I saw hundreds of cowboys and cow "punchers," I never saw a revolver fired, or any evidence of that recklessness which is so proverbial. In isolated mining camps, revolvers are recklessly carried; but one might start from New York, and make the whole Western trip by the regular roads, and seldom see a single exposed weapon. There were occasions, on our farther journey, when it was prudent to be well armed.

Four hundred and fourteen miles from Omaha, we reached Sidney. From Sidney, stage-coaches start daily for Deadwood, 267 miles.

north, where are the celebrated gold-mines in the Black Hills of Dakota.

On the 4th, at half-past three P.M., we reached Sherman, the highest elevation on the road, — 8,235 feet. So gradual is the ascent from Omaha, that you would hardly suspect that you were going up hill; and the region over which you pass looks not at all like "crossing the Rocky Mountains." The highest grade between Cheyenne and Sherman is eighty-eight feet per mile. The whole distance is bare of trees, has no very steep appearance, and the land is only valuable for grazing. The distance from Omaha to Sherman is 549 miles, and from Sherman to San Francisco 1,318 miles.

Sherman is a place of wild and lonely desolation, in the Territory of Wyoming. It is named after the distinguished general. On a high point south of the station, a monument is rising to honor the memory of Oakes Ames, one of the most enterprising men whom this country has produced. He was cruelly maligned, and hastened to his grave by the calumnies with which he was pursued in connection with the completion of a colossal highway to the Pacific, which has done more to perpetuate the union of our vast empire than the greatest battle which was fought.

Seventy miles south-west of Sherman is

Long's Peak, and 165 miles to the south is Pike's Peak, both visible.

Laramie City is 573 miles from Omaha, the county-seat of Albany County, Wyoming. It contains about four thousand inhabitants; has a rolling-mill, but stock-raising is the great industry. The "Laramie Plains" comprise a belt, twenty-five by sixty miles, of the finest grazing-lands. Countless buffalo once roamed these plains, and had as good title to the lands as had the Indians who roamed in like manner. It is said that over three thousand horses and mules, ninety thousand head of cattle, and as many sheep, can now be found within forty miles of Laramie. The plains are well watered.

Carbon is 657 miles from Omaha, and here was the first happy discovery of coal on the road. Since then, far better mines have been found farther west, — at Rock Springs, and at Evanston.

Rawlins is 709 miles from Omaha. Before reaching Rawlins we come to the sage-brush and alkaline beds: they extend west for more than a hundred and twenty miles. The sage-brush is a bush about four feet high; its leaf and form are like the garden sage (but the bush is much larger), and it tastes like wormwood: it grows on the alkaline beds, where nothing else will grow. The alkaline dust through this

region is excessive, filling every car, irritating to the eyes, throat, and lips; and the water of the region is very unhealthy for man or beast.

At Point of Rocks, 805 miles from Omaha, is an artesian well, 1,015 deep, from which issues a stream of pure water; and here are extensive coal-mines. On a high bluff, above the coal, is a vein of oyster-shells six inches thick. Professor Hayden, in his Geological Report, says, "Preserved in the rocks, the greatest abundance of deciduous leaves of the poplar, oak, elm, and maple, are found. . . . Among the plants is a specimen of fan-palm, which, at the time it grew here, displayed a leaf of enormous dimensions, sometimes having a spread of ten or twelve feet."

When President Arthur came to the Yellowstone Park, he had with him sea-shells which he took from the Rocky Mountain heights.

At Rock Springs, eight hundred and thirty miles from Omaha, is another artesian well, 1,145 feet deep: the water flows in great quantities, twenty-six feet above the surface. Rich coal-mines are near. From this point to Green River, a distance of fifteen miles, the road runs through a deep mountain gorge where the scenery is quite impressive.

Green River is 845 miles from Omaha. The bluffs near this station are of peculiar forma-

tion: they are perpendicular, rising several hundred feet, composed of layers of sedimentary rocks, sandstone, white sand, pebbles, clay, and lime, with layers of boulders also, each layer of a different shade of color. The hills around are capped with a yellowish sandstone in peculiar castellated forms. This scenery has a just celebrity.

At Granger, 876 miles from Omaha, the Oregon Short Line, a branch of the Union Pacific, begins, and runs north-west through Oregon to Baker City, and, in connection with the Oregon Railway and Navigation Company, to the Columbia River.

At Hilliard, 942 miles from Omaha, is a flume crossing the track twenty feet above it, in which large quantities of lumber are floated from the Uintah Mountains, between twenty and thirty miles to the south. Here are located the Cameron bee-hive kilns, for burning charcoal.

Castle Rocks are about 975 miles west of Omaha, and form a long line of sandstone bluffs, on the right bank of Echo Cañon, and vary in height from five hundred to fifteen hundred feet. In the distance they look like vast castles. Nine miles west of Echo City we come to the thousand-mile tree, a thousand miles from Omaha: it is a branching pine, and

on its trunk is the notice. We have passed through the Wasatch Mountains, and now come to the valley of the Great Salt Lake.

At Ogden, 1,032 miles from Omaha, and 835 from San Francisco, we reach the end of the Union-Pacific Road, and begin the Central Pacific. The elevation here is 4,294 feet. Ogden is said to contain six thousand five hundred inhabitants, mostly Mormons. Valuable mines are reported as near the town, and the waters of the Ogden River irrigate the place. The Wasatch Mountains, towering high above with their granite walls, made the surrounding scenery imposing, and the air salubrious.

We came through from Omaha to Ogden the first week in June, and were surprised to find the roads for a thousand miles so dusty, the treeless hills so barren, no green of any kind, — a general aspect of barrenness, and but few crags or mountain peaks to break the dreary monotony. Miles of snow-fences and vast snow-sheds were frequent; but we learned that live stock thrive and fatten upon the dried grasses, which remain nutritious, as in California, till the autumn rains destroy the nutriment, when new grasses spring up, and make the hills green again before November. It is certain that the yearly number of sheep, mules, cattle, and horses, which are reared along this road, is

immense. During the summer months there is no rain in the Rocky Mountains, California, or the Yellowstone Park.

It matters little what the Government advanced to build the Central and Pacific roads. This great highway is of priceless value to the nation: had it cost the Federal treasury ten times more than it did, it were money well invested. The Government did not advance cash, but loaned its credit in the form of six-per-cent bonds, at thirty years, with interest half yearly. On the 1st of July, 1862, in the heat of the war, President Lincoln signed a bill which was the charter of the road. The Act was entitled: "An Act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes." The grant of land was every alternate section for twenty miles on each side of the road; that is, twenty sections for each mile, or twelve thousand eight hundred acres a mile, a section being six hundred and forty acres. In addition to the land grant, the Government, in aid of the work, issued its bonds to the Union Pacific, in all \$27,226,512; to the Central Pacific, in all \$25,885,120. Such is the pecuniary benefit of the road, that, if no part of the government subsidy is ever repaid,

the Government will have saved many millions by its loan of bonds.

The building of the Pacific Road commenced Nov. 5, 1865, on the Missouri River near Omaha. By the Act of 1862, the time of completion was limited to July 1, 1876. It was finished in three years six months and ten days. On the 10th of May, 1869, the Pacific met the Central at Promontory Point, Utah Territory.

At Ogden we are near the Great Salt Lake, which is about a hundred miles long by forty-five miles wide. Its general direction is from north-west to south-east; and, as you will see by the map, Ogden is about midway of the lake, a short distance to the east. The lake has no outlet, though many rivers empty into it, — the rivers Jordan, Weber, and others. Of late the waters have risen slowly, and they are now twelve feet higher than they were twenty years ago. The water is so buoyant that it is difficult to swim in it, and very difficult for a steamer to navigate it.

The water is exceedingly salt, and very acrid; and the white salt along the shores will take the skin from the tongue which tastes it too freely. While bathing with others in the lake, I carelessly swallowed a little of the water, and my throat closed, and I was nearly suffocated: a man who saw the trouble hastened to my

relief with a flask of brandy, without which I never could have reached the shore. Several bathers have been made seriously ill by inadvertently allowing a drop from a wave to enter the throat; and some have died from a swallow of it. No living thing is found anywhere in the lake's vast waters. No ice ever forms upon it. I better understand the passage in the Bible where the swine "ran violently down a steep place, and were *choked*."

We were told that a German Jew went to bathe in this lake, and was never seen again. His clothes were found in the bathing-house, but all search for his body proved fruitless. It has since attracted notice, that his life was insured for thirty thousand dollars, and that his cheerful wife, after arranging his affairs, soon left the city with the insurance-money. The impression prevails, that he had other clothing, and played the game for the purpose of securing the money; since the buoyancy of the waters would surely have disclosed the dead body if drowned in the lake.

CHAPTER IV.

THE MORMON CITY AND THE MORMONS.

SALT LAKE CITY is near the south end of the lake, in latitude $40^{\circ} 47'$ north, and is thirty-eight miles south of Ogden. It lies at the foot-hills of the Wasatch Mountains, at the northerly end of a level plain which is about forty miles long and fifteen wide, and is called the Valley of the Jordan. The Jordan River runs northerly from Utah Lake, nearly forty miles south of the city, to the west of the town, and empties into Salt Lake twelve miles distant. These snow-topped mountains, from twelve to thirteen thousand feet high, form nearly a semi-circle on the east of the plain, and nightly cool the city after the cloudless sun has heated the valley. There are no summer rains; but copious mountain streams run through the streets on each side, and the lands around are green and productive from easy irrigation. On the south-west the Oquirr range of mountains seem to bound the plain, and far beyond is a moun-

tain where abundant rock-salt is found in a remarkably pure state.

On June 8 Modjeska arrived at the Walker House, and created some little excitement. In the evening we went to hear her play in "As You Like It," in company with Gov. and Mrs. Murray.

The Mormons are fond of giving Bible names to their children; one child of the President being called Ezra, another Moses.

The Mormons gave us a history of their trials and persecutions, of their wanderings from Missouri and Illinois; and how, when they were in the latter State, they volunteered five hundred strong to the Mexican War.

Mr. Cannon drove us to the warm Sulphur Springs, ninety-six degrees, especially good for cutaneous diseases. Bathing in this spring is excessively weakening. We observed one man with a bald head taking his tub, and as he had an egg in his hand we watched him with some curiosity. After breaking the egg, and dividing the contents in each half-shell like a sherry-cobbler slinger, he first rubbed his hairless top with the white, and then with the yolk, expecting the hair to rise like Jack's beanstalk,—some barber having probably sold him the receipt. While we remained, no apparent transformation took place on his bald head;

and since the flies began to be attracted by the yolk I felt like giving him the well-known recommendation, — that of painting a cobweb on his cranium while the fly months lasted. After going to the spot where this sickly warm mixture rises, we drove on to the hot springs, where the water is nearly boiling, an egg being easily cooked in a few minutes.

Fort Douglass, a military post, is situated on the east side of the Jordan, four miles from the river and three miles east of the city. It is on a high base of the mountains sloping west. The officers' houses are of uniform appearance, well built in a semicircle, with a green lawn in front, cheerful with running water cold and abundant, and the whole combination is truly charming. The post is now commanded by the gallant Gen. McCook. Not far away is the Emma Mine, and many other mines which are worked.

We were told by Gen. McCook that he had seen clams at Puget Sound weighing fifteen pounds, tender, of delicate flavor, and excellent for food. We shall speak of these mammoth clams farther on.

We were assured that Utah Territory is very rich in gold, silver, coal, iron, copper, zinc, cinabar, and every other metal found in the West; and it is the opinion, that, had not Brigham

Young warned his Mormon followers against "seeking for corrupting gold," and told them to confine themselves to "multiplying, and replenishing the earth," Utah would have developed mineral wealth equal to that of California. The Mormons are not miners; but there are many smelting-furnaces in and around Salt Lake City, and a large number of manufacturing establishments.

The population of Salt Lake City is now twenty-seven thousand. It seems to be a well-ordered and prosperous town, and is illuminated with electric lights. The streets are wide, bordered with trees, and laid out at right angles. The cold streams from the snow mountains, which wash the streets on either side in rapid flow, add largely to the health, comfort, and cheerfulness of the place.

The Mormon Tabernacle is a strange-looking building of immense proportions. It is an ellipse; the inner axes are one hundred and fifty feet by two hundred and fifty; the roof is a single arch supported by forty-six large columns of cut stone. It will hold fourteen thousand people. Its acoustic properties are wonderful: the dropping of a pin into a hat can easily be heard from one end to the other. We were informed that the preachers were called upon just as the Divine influence prompted,

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being in this respect somewhat like the Plymouth Brotherhood in England.

The Temple is a Gothic structure, built of granite, not yet complete. Its base is one hundred and sixteen by one hundred and ninety feet. It will be very high, with five pointed towers. The base walls are sixteen feet thick, built with inverted arches of granite blocks. It seems built for eternity — rather inconsistent for Latter-Day Saints who believe in an early "second coming."

From the top of the main wall we obtained a grand view of the magnificent valley, which far exceeds in size any thing I have seen in Italy, Switzerland, France, or Germany. We were in a basin which from the shell-deposits must have once been a huge lake twenty miles by forty. All around us, even now the sixth day of June, vast mountains rose to a height of thirteen thousand feet in snowy grandeur; and at a distance of twenty miles we could see the Great Salt Lake, rich fertility greeting us on all sides. With such natural advantages, no wonder that Brigham Young, even if this had not been seen by him through divine revelation in a dream, could hardly have refrained from saying, "Here we will pitch our camp, and build our temple."

In this Temple we were shown the places of

the Endowment House, the baptismal font (their baptism is by immersion), and the "Holy of holies;" where we were told that angels were expected to be met, and where probably Christ the Saviour would be seen (this was said with the utmost seriousness and apparent belief).

While my father was Attorney-General in the Cabinet of Gen. Grant, he became acquainted with Mr. George Q. Cannon, then the delegate to Congress from Utah. Mr. Cannon was now very polite to us, and introduced us to the president and council of the church.

The next day we dined at the Amelia Palace (as it is called), the spacious residence of the president of the hierarchy, where we met Mr. Kane the present delegate to Congress, Mr. Cannon, and others of the church, besides some of the daughters of Mr. John Taylor the president. Mr. Taylor is a tall, venerable old gentleman, with white hair, courteous manners, and of quiet and cultivated demeanor: he was dressed in black, with a white cravat, and seemed altogether like a Presbyterian clergyman of the old school, with a rich congregation, a large salary, and sincere faith. The dinner was excellent, served in good style, and the currant-wine was delicious. The conversation was upon general subjects, such as would have

been discussed at a dinner of intelligent gentlemen in New York.

Those who fancy that the Mormon leaders lack shrewdness, or fixedness of purpose, are mistaken.

In Utah, the women all vote the same as men.

Their temples and religious houses are built by tithes, which the faithful contribute for the church. Saturday is the day for payment; and throughout the morning wagon after wagon comes slowly through the dusty street, bearing its little offering. One poor Scandinavian woman is now passing before me with a dozen eggs, the tenth of her week's increase; another now fills her place, tightly holding three obstreperous hens; still another Mormon lengthens the line, chiding good-humoredly his two oxen bearing along some hay and turnips, his tenth; still one more passes, holding with one hand the rope which leads a cow, while her other grasps the reins of her horse.

Under the Edmunds Bill of last winter, a commission was appointed to take the registry of voters in Utah, and to exclude all polygamists. Gov. Ramsay of Minnesota was chairman of the commission, — an eminent and experienced public man, whom my father knew well. He told us at Salt Lake, in early June,

that the commission had finished its work, exercising all the power which the law gave them ; that he suspected, notwithstanding, that the Mormons would succeed at the election in August. The election took place on the 6th of August, and every member of the legislature is a Mormon. Under this faithfully executed commission, all, both men and women, were disfranchised, who had ever married a second wife while the first was living, or who had ever taken a husband who had another wife. In this way, all polygamists were excluded from the polls, to the number of twelve thousand. The Mormons of Utah are a hundred and thirty thousand.

No doubt there is some difficulty in dealing with the Mormon question. Mormon obedience to Church authority is absolute : the Church is the tribunal to which all their disputes are submitted. Their readiness to make any sacrifice, or suffer any privations, in support of their creed, has been attested. Their prosperity under trials has largely increased ; and the idea that if let alone they will disband, and become dispersed, belongs only to those who are ignorant of the facts, of past history, and of human nature. Their priesthood has concentrated power, and through their tithing-system commands great wealth. Outside of any fanaticism, this gratifies their able leaders, and most of their believ-

ing followers are far better off than ever before: they are sure of comfortable support and a decent burial.

We met several Christian gentlemen of large intelligence, who were inclined to suspect that the growth of Mormonism was partly due to the evils which modern luxury and extravagance have brought upon us, in consequence of which young men cannot support a family, and young women are deprived of their natural exercise of the domestic affections. They say that it is quite certain, that, if the wealth which is earned by the nation were more evenly distributed, more women could get married; and that no young woman who could get a single husband would ever marry a man who had a plurality of wives; and that the Mormon Church is largely increased by those who seek refuge from poverty and degradation, against which the Gentile Church, with all its abounding luxury and riches, does not protect them.

Converts are coming in from the poorer class of the South. Scandinavia, Germany, England, Wales, and even Scotland (not Ireland), are sending recruits in abundance. The Church sends missionaries far and wide to promulgate its gospel, and promises a home forever, free from want, to all who will lead an industrious and frugal life. They do not call

themselves "Mormons," but "Latter - Day Saints."

Contrary to our expectations, we found them the most severely orthodox of any sect we have met. They believe in the plenary inspiration of the Old and New Testaments, and receive every word of these sacred books in absolute faith, and according to their literal reading, obscured by no scientific doubts or development theories. They cite profusely from the Bible in support of their every doctrine; and from the practices of Abraham, to the latest of the wise men of old whom we are taught to revere, they defend their views about polygamy: they claim that the practice was enjoined by the God of Abraham, and was followed by all the faithful of Abraham's seed; that it tends to purity and good order, and will prevent debauchery, celibacy, and the poverty and degradation of women. They do not claim that the teachings of the "Book of Mormon," in the smallest measure, contravene the teachings of the Old and New Testaments; but that it is merely an additional revelation, through a prophet of the Lord, coming down so late as four hundred and twenty years after the birth of Christ.

Mr. Cannon presented us with several volumes, which give a history of the Mormon

Church, and a statement of their doctrines ; from these I give the following summary : —

The " Book of Mormon " which was presented is an English edition of six hundred and twenty-three handsomely printed pages. It is divided into chapters and verses, and is written much after the style of the Old Testament. It professes to be an inspired historic book, and claims to give the origin and history of the North-American Indians. It teaches, that, when the Lord confounded the languages at the Tower of Babel, he led forth a colony from thence to the Western Continent, which is now called America ; that this colony, after crossing the ocean in eight vessels, and landing in that country, became in process of time a great nation. They inhabited America for some fifteen hundred years they were at length destroyed for their wickedness. A prophet by the name of Ether wrote their history, and an account of their destruction. Ether lived to witness their entire destruction, and deposited his record where it was afterwards found by a colony of Israelites who came from Jerusalem six hundred years before Christ, and re-peopled America. This last colony were descendants of the tribe of Joseph. They grew and multiplied, and finally gave rise to two mighty nations. The people of one of these nations were called Nephites, one Nephi be-

ing their founder ; the other were called Lamanites, after a leader named Laman. The Lamanites became a dark and benighted people, of whom the American Indians are still a remnant. The Nephites were an enlightened and civilized people ; they were a people highly favored of the Lord ; they had visions, angels, and the gift of prophecy among them from age to age ; and finally they were blessed with a personal appearance of Jesus Christ after his resurrection, from whose mouth they received the doctrine of the gospel, and a knowledge of the future down through all succeeding ages. But after all the blessings and privileges conferred upon them, they fell into great wickedness in the third and fourth centuries of the Christian era, and finally were destroyed by the hands of the Lamanites. This destruction took place about four hundred years after Christ.

Mormon lived in that age of the world, and was a Nephite and a prophet of the Lord. He, by the commandment of the Lord, made an abridgment of the sacred records, which contained the history of his forefathers, and the prophecies and gospel which had been revealed among them ; to which he added a sketch of the history of his own time, and the destruction of his nation. Previous to his death, the abridged records fell into the hands of his son

Moroni, who continued them down to A.D. 420; at which time he deposited them carefully in the earth, on a hill which was then called Cumorah, but is situated in Ontario County, township of Manchester, and State of New York, N.A. This he did in order to preserve them from the Lamanites, who overran the country, and sought to destroy them and all the records pertaining to the Nephites. This record lay concealed, or sealed up, from A.D. 420, to Sept. 22, 1827; at which time it was found by Mr. Joseph Smith, jun., he being directed thither by an angel of the Lord.

This Joseph Smith was born in the town of Sharon, Windsor County, Vt., on the 23d December, 1805, of very humble parents. When he was ten years old, they removed to Palmyra in the State of New York. When he was seventeen years old, he claimed to have had a vision, in which a heavenly messenger revealed to him that certain sacred records engraved on plates were buried in the earth, which would be delivered to him. He says : —

"I left the field, and went to the place where the messenger had told me the plates were deposited; and, owing to the distinctness of the vision which I had had concerning it, I knew the place the instant I arrived there. Convenient to the village of Manchester, Ontario County, N.Y., stands a hill of con-

siderable size, and the most elevated of any in the neighborhood. On the west side of this hill, not far from the top, under a stone of considerable size, lay the plates, deposited in a stone box. This stone was thick and rounding in the middle on the upper side, and thinner towards the edges, so that the middle part of it was visible above the ground, but the edge all round was covered with earth. Having removed the earth, and obtained a lever, which I got fixed under the edge of the stone, and with a little exertion raised it up, I looked in; and there indeed I beheld the plates, the Urim and Thummim, and the breastplate, as stated by the messenger. The box in which they lay was formed by laying stones together in some kind of cement. In the bottom of the box were laid two stones crossways of the box; and on these stones lay the plates and the other things with them. I made an attempt to take them out, but was forbidden by the messenger; and was again informed that the time for bringing them forth had not yet arrived, neither would until four years from that time; but he told me that I should come to that place precisely in one year from that time, and that he would there meet with me, and that I should continue to do so until the time should come for obtaining the plates."

It is asserted that once in each year, after the interview with the angel, before referred to, in 1823, Joseph repaired to the hill where the plates were still deposited, where he each time met with this same heavenly messenger, and

received further instructions, until the time was fully arrived when the plates were to be delivered into his hands; which took place on the 22d of September, 1827. He then, it is claimed, provided himself a home with his father-in-law in Northern Pennsylvania, and began the translation of the plates by the gift and power of God, through the means of the Urim and Thummim.

Joseph Smith was killed by a mob at Carthage, Ill., June 27, 1844; and Brigham Young succeeded him as president of "the Church of Jesus Christ of Latter-Day Saints." He led the Mormons across the dreary wilderness of the Rocky Mountains, out of the United States, and settled by the Great Salt Lake in the Republic of Mexico. On the 24th of July, 1847, his advance guard entered the valley; and on the 31st of July, Salt Lake City was commenced. By the treaty of Guadalupe Hidalgo in 1848, this territory was ceded to the United States.

Brigham Young was born in Whitingham, Vt., June 1, 1801. His father served under Washington in the Revolution. He was originally a Methodist; and in 1830 he first saw the "Book of Mormon," and became a firm believer, and was baptized into the Mormon Church two years later. He established a prosperous community, and died at Salt Lake City, Aug. 29,

1877; and was succeeded by John Taylor, who was severely wounded by the mob at Carthage when they assassinated Joseph Smith. Brigham Young took an active part in all the public improvements likely to advance the interest of the Territory, and facilitate communication with the East. He counselled his followers against the pursuit of gold by mining, and urged them to engage in agricultural pursuits. He died rich, at the head of the Mormon hierarchy.

Notwithstanding the example of Abraham and the practices of Solomon, it shocks the religious sentiments of every Christian to see one man with several wives and several families of children, and we feel that no decent man can have more than one wife; and the facility with which divorces are granted, and successive wives and successive husbands are taken by many people, bodes no good to the Republic, and gives the Mormons the opportunity, of which they avail themselves, to reproach us.

If it is difficult to deal with the Mormon question, time will only enhance the difficulty. When Utah shall have the requisite population, and with a republican form of constitution applies to be admitted as an independent State, she must be received, unless rejected on some reasonable ground. If she becomes a sove-

reign State, the Federal Government cannot interfere with laws which she may enact, relating to marriage, divorce, descent of property, legitimacy, or any domestic matter in harmony with republican government, and not in violation of the Constitution of the United States. If refused admittance on the ground of her peculiar faith, party politics are likely to intervene; and one side or the other may consider how two new senators and two additional representatives may influence the presidency.

We had supposed that polygamy, so abhorrent to all our ideas of Christian civilization, was the great objection to the Mormons; but Gov. Murray assured us that it is of small importance compared to their disobedience and utter disloyalty to the Constitution and laws of the United States, and expressed to us his amazement at the indifference of the loyal and Christian East, to what he considered a great abomination, tending to undermine the true religion and subversive of republican government. He assured us that the Mormons openly set at defiance the Acts of Congress; that they were loyal to the decrees of the Mormon priesthood, and disloyal to the Constitution and laws of the United States.

If the governor's statements are correct, one fails to see why Mormons who break the laws

are not punished, the same as other citizens who violate the statutes. If a citizen of Utah robs the mail, or commits a rape, the laws of the United States can deal with him, and the Government would not have executed the law against the guilty offender by depriving him of the right to vote. There are laws enough applicable to Utah against bigamy, arson, robbery, slavery, and polygamy: LET THEM BE ENFORCED. If there are not enough, let them be enacted. Some of our countrymen think it a lame and impotent conclusion to admit that the United States cannot enforce her laws, and that therefore popular government must be abandoned in the Territory. The Valley of the Jordan is capable of sustaining a large population, and Utah is rapidly increasing: we having long since established a Territorial government over her, under which the people annually elect a legislature, and in conformity to which they have for many years sent delegates to Congress. It would be novel in our history to take away the elective franchise from *all* the people, the innocent and the guilty, and place the government of the Territory in commission.

Senator Edmunds, than whom no one is more eminent as a constitutional lawyer, writes to "The Independent: "—

"Polygamy seems to me to be one of those evils that are to be overcome by processes apparently slow, and by means that will gather into the opposition to it all that portion of the Mormon people—and it is considerable—who do not believe in the plural-marriage business. I have good reason to believe, that, since the passage of the last act, polygamous marriages have almost entirely ceased there, and that, with firm and capable administration of the law, they will not be revived. The difficulty with the proposition to put the government of the Territory into the hands of a commission is:—

"*First*, That I believe it to be entirely unconstitutional, if the commission is to be given any law-making power; and, I fear,

"*Second*, Quite impracticable unless a local law-making power shall be lodged somewhere.

"*Third*, It is revolutionary, and deprives the innocent as well as the guilty of all voice in public affairs. Nothing but the direst need could justify such a step.

"*Fourth*, It is quite clear to my mind, that the suppression of polygamy will be just as far off with the government of the Territory in the hands of a commission as it is now, if not farther; for it will solidify and intensify a class feeling of the Mormons, and tend to draw to the support of the hierarchy and polygamists the whole body of the Mormon people."

The practice of polygamy is not general among the Mormons, nor is it likely to increase in the ratio of population. Since Solomon,

with his seven hundred wives, found it all "vanity and vexation of spirit," he has had no rival; most men finding the management of *one* wife quite equal to their strength.

The advance of Christian civilization, and the influence of public opinion, already demand that the same power which put down slavery shall end polygamy. But laws have nothing to do with faith in Joseph Smith, or belief in the inspiration of the "Book of Mormon." This book nowhere enjoins polygamy: the idea of plurality of wives came of an independent revelation, pretended to have been communicated through Joseph Smith.

In the preface to this "Book of Mormon" is the following:—

THE TESTIMONY OF EIGHT WITNESSES.

Be it known unto all nations, kindreds, tongues, and people unto whom this work shall come, that Joseph Smith, jun., the translator of this work, has shewn unto us the plates of which hath been spoken, which have the appearance of gold; and as many of the leaves as the said Smith has translated, we did handle with our hands; and we also saw the engravings thereon, all of which has the appearance of ancient work, and of curious workmanship. And this we bear record with words of soberness, that the said Smith has shewn unto us, for we have seen and hefted, and know of a surety that the said Smith has got the plates of which we have spoken.

And we give our names unto the world, to witness unto the world that which we have seen ; and we lie not, God bearing witness of it.

CHRISTIAN WHITMER,	HIRAM PAGE,
JACOB WHITMER,	JOSEPH SMITH, SEN.
PETER WHITMER, JUN.	HYRUM SMITH,
JOHN WHITMER,	SAMUEL H. SMITH,

Where are these golden plates, engraven with the "sacred record"? Where are the "Urim and Thummim" by the aid of which the engraving was translated? When my father put these questions to a believing Mormon, he looked hurt and bewildered as did the negro preacher, who, while loudly exhorting his brethren to repentance, finally wound up his peroration by giving his audience a glowing description of the creation, as follows: "My brederen, de good Lord stuck out his eye, and gazed ober de whole earth, and den he said, 'Let us make a man: ' so den he took some wet clay by de ribber side, just ob de right sort, and he moulded his arms, and den de legs, and den he put a head on him, and sot him up agin a fence." A young fellow in the front row at this stage shouted out, "War dot fence come from?" The old preacher paused one moment: then a look of sadness came over his withered face; and, sternly pointing his long forefinger at the reprobate, he said, "T'ree

more of dem questions will undermine de whole system ob t'eology."

It seems amazing that sane men can believe that there ever were any such plates; and yet we know that the Buddhists far outnumber all the Christian sects combined, that the followers of Confucius are more than the followers of Christ, and that the Mahometans largely outnumber all the Protestant Christians, showing that false religions have more votaries than the true.

We have no right to interfere with Mormon faith, however preposterous; but when Mormons, or any other sect, disobey the laws, the Government should enforce obedience *at any cost*.

I do not claim to have any valuable judgment upon this subject, and only jot down the substance of many discussions which I have heard; but I cannot understand why the laws of the United States should not be enforced in the Territory of Utah, the same as in our other Territories.

At Salt Lake it seldom rains in summer; but the facilities for irrigation are ample, and three good crops of luzerne clover are procured in a season: and, though the midday is hot, the nights are always cool.

It is conceded by all that the Mormons are

temperate, industrious, and economical. The Church, and not the State, decides disputes between contending Mormons. Its authority is absolute, and this concentration of power over willing obedience seems to aid the accumulation of wealth.

The city has two commodious theatres, many fine buildings, and several beautiful mansions, with charming lawns, flowers, and shrubbery. Besides the Amelia Palace where the president resides, there are other residences equally fine : the house of Mr. Jennings the mayor, where we were entertained, would attract attention by its size and beautiful grounds, in any city of the East. We were much about the city, both by night as well as by day ; and it seemed orderly and generally well cared for, and Gov. Murray told us that it was so. He, however, at all times denounced the Mormons, not so much on account of their polygamous doctrines, but chiefly on account of what he considered their disloyalty to the Union.

A walk about the Mormon city after night-fall will reveal that it is by no means free from the vices of other cities of its size.

The plural wives and different families of the chief Mormons are not placed in the same house, but have separate dwellings. The head of a family has less trouble about keeping good

servants than the Gentiles have. If a laundress, housemaid, or cook proves herself acceptable, he can marry as many such as he chooses : and the maid being "sealed unto him" is his servant for life,—a slavery which seems voluntary ; but this also imposes the obligation of care, protection, and support upon the man.

Polygamy cannot last long. All the better instincts as well as the principles of our people are against it.

CHAPTER V.

FROM SALT LAKE CITY TO SAN FRANCISCO.

WONDERFUL is the railroad-train! The first that ever ran over an American road was (in 1831) from Albany to Schenectady, N.Y. Mr. Sidney Dillon, now president of the Union Pacific, is said to have been on that train.

We are now on the Central Pacific Road, one thousand and thirty-two miles from Omaha, and eight hundred and thirty-five miles from San Francisco. Fifty-two miles west of Ogden is Promontory, where the last spike uniting the two roads was driven on the 10th of May, 1869. To accomplish this, ten miles of track were laid in one day on the Central Pacific Road.

Eleven hundred miles from Omaha commences the American Desert; and for a hundred miles it is a desert indeed, in which you swallow alkaline dust at every breath. The dusty desert continues until you reach Wadsworth, 1,587 miles from Omaha, and 555 miles from Ogden. 1,633 miles from Omaha, we reach California.

Summit is 1,667 miles from Omaha, and the highest point of the Sierra Nevada Mountains passed over by the Central Road. It is at an elevation of 7,017 feet; but granite peaks are near, rising over 10,000 feet. There are many miles of snowsheds, and one tunnel of 1,659 feet, in these mountains.

Near Colfax, 1,722 miles from Omaha, is some grand scenery.

Sacramento is 1,776 miles from Omaha, and ninety-one miles from San Francisco. Until 1870 Sacramento was the end of the Central Pacific Road; but when the road from Sacramento to San Francisco was completed (called the Western Pacific), it was consolidated with the Central Pacific. This is a thriving town, on the east bank of the Sacramento River, of some twenty-eight thousand inhabitants. The country round is exceedingly fertile and beautiful: vineyards, fruit-orchards, and immense wheat-fields spread over vast areas. We reached there on the 11th of June, and much wheat was already harvested.

CHAPTER VI.

SAN FRANCISCO.—THE BAY.—THE MARKETS.—THE BUILDINGS.—THE CHINESE QUARTER.

ON Monday, before eleven o'clock on the 11th of June, we reached Oakland Pier; and, sailing five miles by steamer across the bay, we reached the Palace Hotel in San Francisco before twelve o'clock.

A remarkable city it is. It lies on the west side of a bay more than fifty miles long, large enough to float the navies of the world. On the west side of the narrow strip of land at whose north extremity the city stands, are mountains which entirely conceal the ocean and protect the bay. The Golden Gate, very deep and narrow, scarce three-quarters of a mile wide, is the only way to the great ocean.

We went to the Palace Hotel, which no visitor should fail to visit, if only for a few hours. It is the largest hotel in the world, with its seven hundred and fifty rooms, its seven vast stories, dining-rooms, electric bells, and every modern convenience; to say nothing of the an-

nouncement that it is earthquake-proof, which means that large iron anchors hold it together, rendering it tolerably secure against an occasional danger. The *table d'hôte* is poor, each waiter having the air of one who had never been feed and who never expected to be; the restaurant, on the contrary, being excellent.

We visited the jewelry-store of Col. Andrews, where the "last spike" for the Union and Central Railroads was made. This well-known repository of diamonds, gold, and silver, the Tiffany of the West, is situated in Montgomery Street, and bears the enticing name of the "Diamond Palace." They showed us the miniature imitation of the Parthenon in Paris, composed of some twenty native quartz specimens containing gold in its natural state; the model standing some two feet in height, exquisite in point of workmanship, and valued at twenty thousand dollars. Two men were employed for a couple of years in the mines, gathering perfect specimens of gold-quartz for its manufacture. Gen. and Mrs. Grant, among the many courtesies tendered them, had the honor of walking over solid bricks of gold, so that Dick Whittington's London dream was realized in San Francisco.

Our first impression of San Francisco was that of a mushroom city; since every house,

which at a distance appeared like white marble, granite, or sandstone, turned out, on closer inspection, to be painted wood. This in a city noted for its wealth was surprising; but we soon ascertained that it arose, not from lack of means, but from caution against dangers from earthquakes. The foundations, nevertheless, are in many cases of granite.

We heard Charles Wyndham in the evening. Curious how tastes differ! for in New York he and his company played their famous great "Divorce Case," to crowded houses; but here their acting was poorly appreciated.

The agent of the Central Pacific Railroad had volunteered to initiate me into the mysteries of the "Chinese Quarter," where vice, opium, religion, thrift, laziness, gambling, and penury may be heard, smelt, seen, in all the realism of China itself. There are about twenty thousand Chinese living like sardines inside of their sandwiched homes. Here, to live in this little space of a few acres, Chinamen cross the Pacific to wash clothes, smoke in their "joints," and utterly eradicate every wholesome aspect of the place.

We rapidly walked up Sacramento Street; and, as if by magic, modern civilization vanished, and we stood transported, as if by Aladdin's lamp, to a new world of Chinese lanterns,

colors, pigtails, and strange odors. Little stalls with their neatly arranged wares were displayed, and Chinese flags and flaring announcements glared at us on all sides. My guide was indefatigable: the doors of gambling-hells, "opium joints," and lower resorts, all seemed familiar to my cicerone.

Detectives and some other personages are said to be indispensable for this visit; and, believing these tales, I had taken my "British bulldog" before starting. It was totally unnecessary; for nothing interfered with us, so that I unfortunately cannot thrill my readers with any startling details.

We strolled into the theatre, and took our stand behind the eager crowd, who, mute and motionless, watched the antics, and closely listened to the nasal twang, of the actors. The play was "An Abduction," the chief Chinese occupying boxes. We did not wait to see who was abducted; for, even in San Francisco, the play lasts eight hours, while in China it extends over some six or eight weeks.

Next we sauntered into the famous Bun Sun Low restaurant, in Jackson Street, where Gen. Grant was entertained. As Chinese women do not act, here my first opportunity occurred for seeing their fair sex; small, all alike, blank faces and dirty nails. Every one as we entered

was absorbed in using their chopsticks; and I watched them for some seconds, amused at their dexterity. On the top floor, with its seats made of walnut and cherry, walls filigreed with gold, together with numerous ebony ornaments, several opium "lay-outs" looked conveniently inviting. We sat on the veranda, gazing down upon this vision of a strange uncivilization. Now and again, along the sidewalk lighted sticks were burning in a row, with a Chinaman salaaming to them; this being their strange way to appease the spirits. Our waiter comes in; and tea is ready in the cups, with covers of the same material as the saucers, for every cup is the Chinaman's teapot. Up rolled our Celestial; each little cup is full of boiling water, the covers being replaced, leaving a slight aperture for the steam. Ginger delicious in its flavor, curious aromatic Chinese *lichi*-nuts, and delightful cakes, regale us until the tea is made. Up rushes Wing Wang, and with a dexterous turn of his wrist without upsetting the lid, pours each respectively his portion into a still smaller cup. The aroma and richness of the oolong is retained by this process.

We then entered the Chinese joss-house, or temple, and unguents at once gave us warning of what we might expect. We continued on; dark ebony idols grinning at us from even more

sombre corners, while dimly lighted tapers brought out the strange, weird, and startling hangings of these places of worship. Finally a sleepy Chinese pointed out the idols, one grinning fellow with red glass eyes and sharp teeth being shown us as the bad devil who had killed his mother; next, one strong man who had killed a lion, beside him lying a yellow stuffed dog, the result of his prowess. None of my friends had ever seen the Chinese at their devotions, so that I was anxious to witness this ceremony. The pig-eyed Celestial laid some leaves containing prayers in a species of oven with a flue, lit them, and then made a terrific row on a kind of tom-tom, professing that the gods hearing them take the prayers heavenward: as a matter of fact, they naturally grow lighter until the draught takes them up through the flue.

We then strolled through the crooked alleys, and rambled in and out the narrow lanes, reminding one of some little byways in Oxford or Naples, Baveno and Belaggio, along Lago Maggiore and Como, and other little Italian towns which now occur to my mind. Through many of the tortuous ways, debauch and carouse were rampant, and the ruffling sound and *brouhaha* of the Chinese gaming-counters came to our ears. Many of the labyrinths that we

passed through were composed entirely of little Chinese stalls, a female face at each little window inviting in twangy broken English the passer-by. Home we sauntered, more and more assured, that, if the Eastern people could only pay one half-hour's visit to China-town, their cries in favor of future immigration from China would soon cease.

June 12 my friends, Sir John Lister Kaye and his plucky American wife, — whom I had not seen since we crossed from England last November in the "Germanic," — happening to be at the "Palace," we all dined together, and afterward went to hear "Fatinitza." Like many Englishmen of title who desire to raise a golden crop and enjoy a healthy outdoor life, he bought some five thousand acres ninety-two miles north of San Francisco, planted it with wheat, and thus far has been very successful. Lady Kaye spends much time in the saddle, riding over the fields with her husband. Chinamen do their cooking; and though their luxuries are primitive, the evident good health and spirits which they both enjoy speak well for the life they lead.

We rode about the city in the cable-cars, a valuable invention, especially for a place like San Francisco, where the streets run over hills immensely steep and high, where it would seem impossible for horses to drag a carriage up, or

to come down without destruction. Wire cables, running in a grooved iron tube below the surface of the street, are moved by stationary engines. The rail-track is on either side of the cable, and a clamp in the middle of the front car seizes the moving rope of iron, and thus the car moves on. The clamp is opened, the brake put down, when necessary to stop, and this is done much quicker than a horse-car can be stopped: to start again, a wheel is turned, which by a screw clamps the rope, and the car goes on again. Without this machinery, it is difficult to see how the splendid mansions of Crocker, Hopkins, Colton, and Gov. Stanford could ever be reached on their steep, high hill.

On the 13th of June we went through all the markets. We saw oysters large and small, their flavor execrable, like the waters of Salt Lake, — acrid and unpalatable, — saw clams, soft and hard, large and small, smooth and hairy, black muscles also (the taste was not agreeable); the crabs were immense in size, tender, and of excellent flavor; squirrels abundant on the stalls. The meats generally were not very good. Strawberries and raspberries were there, dry and acid; cherries and potatoes superb; artichokes large, but destitute of flavor. I purchased two purple figs for half a dollar, but could not eat them; they were evidently

plucked before the time. Most things we purchased for testing them cost a "bit." I had never heard of that coin before, but found that a "bit," when you paid it, was fifteen cents, and, when you received it, was ten cents.

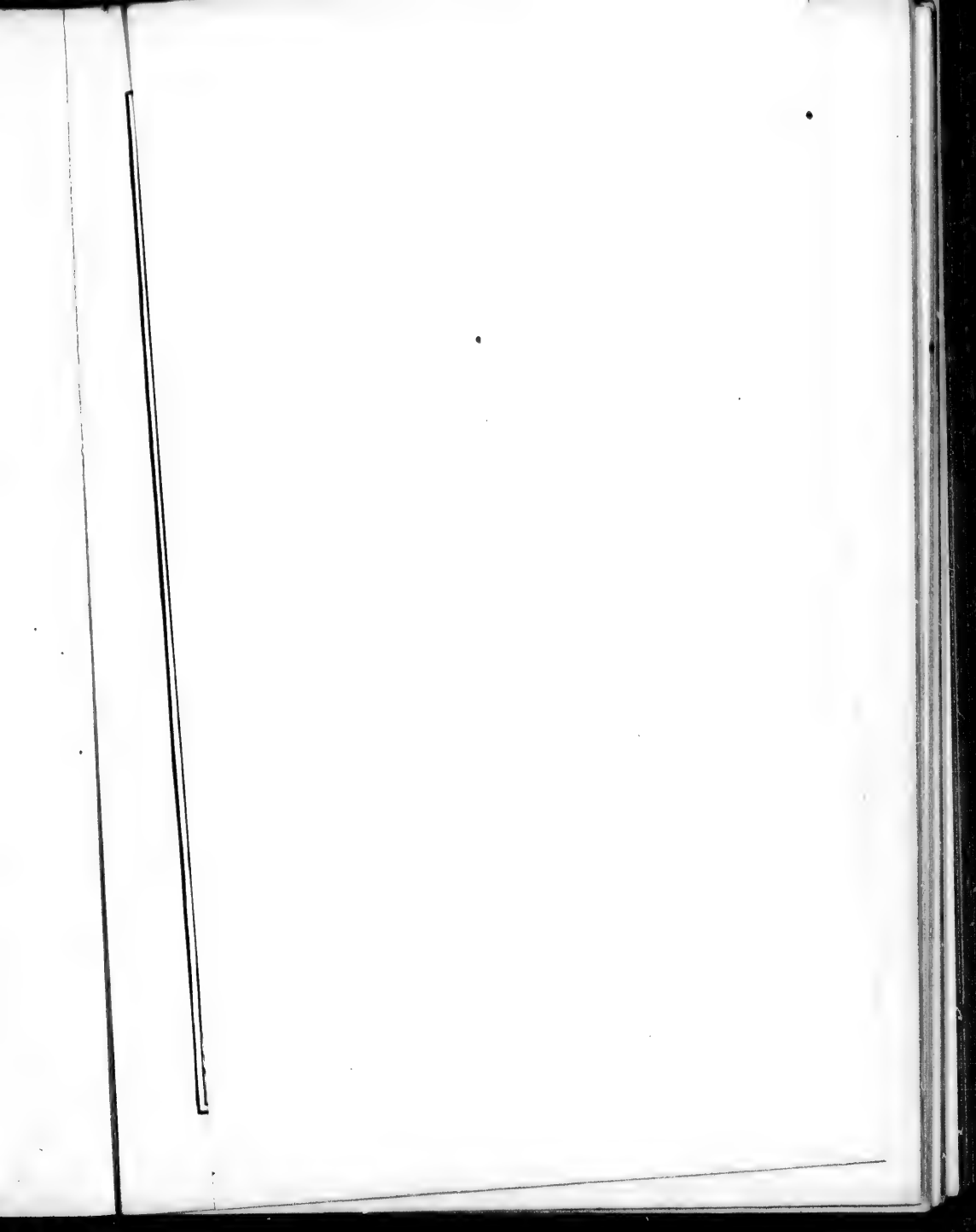
On our return from the Yosemite Valley, I shall have much more to say about this wonderful city.

CHAPTER VII.

TO THE YOSEMITE VALLEY.

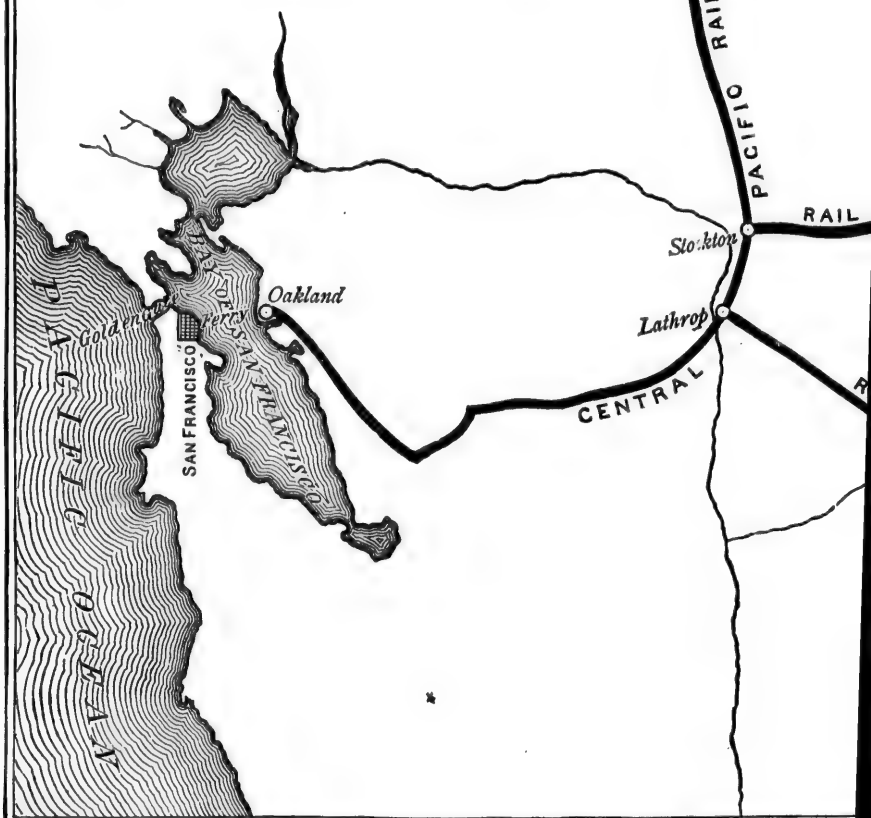
AT four o'clock P.M. on the 13th of June, we left San Francisco for the Yosemite. We reached Stockton by rail (a hundred and three miles), and the next morning proceeded by rail to Milton (thirty miles), then by stage to Priest's (thirty-eight miles), where we lodged, thence to Crocker's (thirty miles), where we remained till the next morning, when we went twenty miles more to the Yosemite House in the valley: total distance, two hundred and twenty-one miles. The valley is nearly due east from San Francisco. By daylight, we were three days in reaching it. The stage-road nearly all the way from Milton was rough and dusty, and the sun was intensely hot.

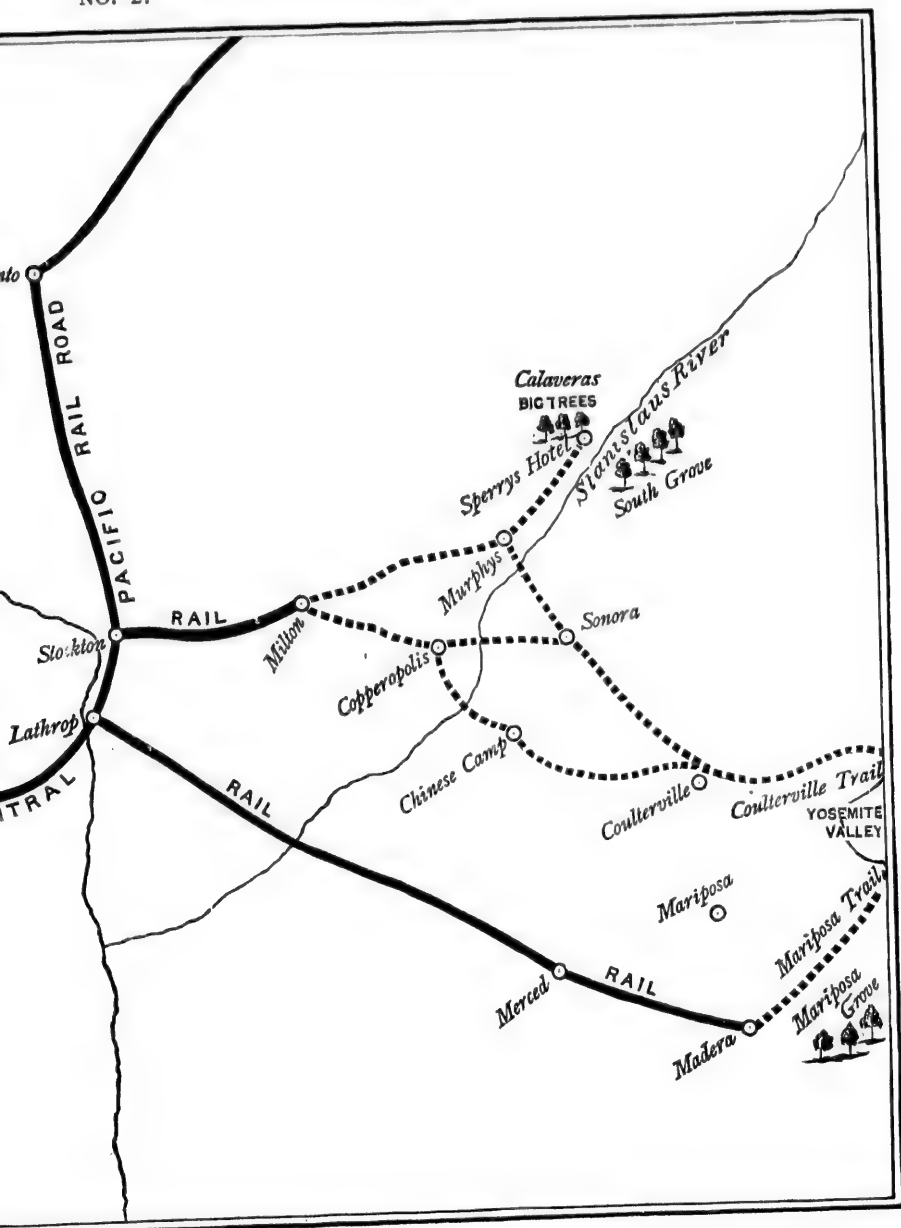
The round trip from San Francisco to the Yosemite, the big trees of the North and South Groves, and back, including the stage and horse-back rides, is a journey of about five hundred miles, and requires twelve days, if you see all well.



BAY OF SAN FRANCISCO
 ROUTE TO THE YOSEMITE VALLEY,
 —AND—
 → THE BIG TREES. ←

Dotted Lines Wagon Roads.
 Heavy Lines ————— Rail Roads.





Reaching Milton, all the excursionists took coaches of some description ; father and I being alone in a light, two-horse conveyance, which gave us much more room, and less dust. On we bowled through an undulating, dry, barren country ; patches of evergreen decking here and there the otherwise dusty hillocks, and every thing which, before the commencement of the Californian rainless season, had been green as an English lawn, now parched and shrivelled ; the little residue of nourishment being quickly nibbled by the bands of sheep, which, in an incredibly short time, give to the greensward the appearance which follows the departure of a locust plague.

We noticed, as the country began to assume a more mountainous aspect, that large numbers of pines were indented with immense numbers of round, dark-looking holes, about the size of a .44 or .50 calibre ball. A couple of Englishmen on a previous trip, having asked our driver what they were, received the startling information, "Wal, this air the identical correct spot war Sittin' Bull, Spotted Tail, and Shootin' Star tackled Gen. Custer ; and them air things is bullet-holes." At first glance we imagined them to be the excavations which woodpeckers had made in quest of the bark-maggots, or little tree-worms ; but we learned, that, fearing the

approach of snow, the woodpecker bores the holes, and inserts with his strong bill myriads of acorns, each receptacle forming a little store-house for a nut, a safeguard against the winter.

Chaparrals dotted the surface on all sides; and, for the first time, we encountered the noted poisonous oak, a three-leaf tree, growing some ten or fifteen feet high, a little in appearance like our three-leaf poisonous ivy, although somewhat less shiny. Starch and water is said to be a good antidote, the shrub producing a swelling intensely painful; a lady travelling with us showed us her arm, where its effects were plainly manifest in red blotches and disfigurements.

The horses of California, and throughout the West generally, can endure more work, and last much longer, than our Eastern horses: they also possess the wonderful power of trotting fast down steep hills without a stumble, or strain to their shoulders. The brake has much to do with this apparent reckless driving, and the skill of its management is of immense help.

A coach-and-four started from "Priest's," where we halted for the night, and found the best-cooked meals and neatest hotel on this Yosemite trip. All the seats were occupied. The brake was known to have been broken, and was merely bound together with a cord, but

was considered quite safe. All went well until, going down an unusually steep hill, the brake gave way, the momentum was greatly increased, the stage turned on a stump, toppled over, and all were hurled to the ground, but — *mirabile dictu* — not a single individual was injured save one, a Catholic priest, who having foolishly kept his foot out of the carriage, his foot and ankle were completely severed: it festered, and the limb had to be amputated above the knee; the poor fellow died.

All along our way, large numbers of moaning-doves and quails, two and two, were crossing our road very frequently. The quails struck me as especially beautiful, with their chocolate, white, and mauve-colored markings. These valley quail are much larger and more beautiful than our Eastern birds; and the cock, with his black and brown crest curling over his beak, is especially gaudy when near at hand, somewhat resembling the French partridge. The California mountain birds differ from their cousins in the valley, both with respect to size, being much larger, and also in that the cock has a crest which rises straight up instead of inclining bow-shaped over the bill. Indians net them very cleverly by means of low brush hedges, containing apertures through which the birds thrust their heads when endeavoring to escape,

thus getting caught in the little horsehair slip-noose already set round these openings.

Multitudes of gray and red squirrels, with occasionally a black fellow, skipped about, — quite a happy hunting-ground for “Alice in Wonderland;” while little chipmunks skimmed up boulders, finding microscopic footholds in a manner to have made a chamois or the nimblest alpine-club man gnash his teeth with envy.

June 15. — This morning we started from Priest’s for another long day’s drive. The scenery began to change, and grow in breadth and altitude. Sugar and yellow pines, with other evergreens, slowly became larger and more lofty as we advanced up the hillsides. Now and again we rushed down some little glen, its rippling valley-stream spanned by a rude bridge, or toiled up a steep ascent, until weary, dusty, and tired, we arrived towards night at Crocker’s, cool and delicious, — the evening’s halting-place. Dinner over, we turned in, and found that only paper separated us from our next-door neighbors. A newly married couple on their wedding-tour were next to me. One man, next day, tried to shave at sunrise; and even though he was several rooms away, the grating of his beard could be distinctly heard.

June 16. — Left Crocker’s at six A.M., quite

well satisfied with both last night's dinner and this morning's breakfast. Now we journeyed through a magnificent forest of big pines, and finally encountered our first *sequoia gigantea*, over thirty feet in diameter.

Some forty miles before reaching the valley, we passed through miles of pine forest of the most magnificent trees. The yellow and the sugar pines are vast in size, and measure from two hundred and fifty to two hundred and sixty-five feet in height, retaining their great diameter for more than a hundred feet. The cones of the sugar-pines measure from eighteen to twenty inches in length. A New-York lady picked up one perfect in form and twenty inches long, and intended to bring it home.

As our stagecoach rounds Inspiration Point, we come in view of the valley, to reach the bottom of which we are obliged to descend a fearful road some four thousand feet. That danger over, we cross the Merced River, which runs through the bottom of the valley; and, driving three miles or more along its banks, we reach the hotel, directly in front of the far-famed Yosemite Falls.

CHAPTER VIII.

THE YOSEMITE VALLEY.

THE next day (June 17), our party starting on our six ponies, headed by our guide, we finally arrived — by a series of zigzag turns, reminding one of the ascent to the Görner Grat Hotel at Zermatt, Switzerland — at the Vernal Falls (Indian name *Pi-us-ack*, signification "Cataract of Diamonds"), a splendid sheet of tumbling waters. We sat on Lady Franklin's Rock, and viewed the magnificent scenery, the foaming tide struggling with the colossal boulders. Remounting, after another hour's climb, we reached the Nevada Falls: these, too, are superb.

After a good lunch of trout at the little hotel, we began our return. The proprietor of this small inn has a pool containing some two thousand or so of trout, all over half a pound, which he is keeping till the spawning is over, and then, as an amusement to his guests, intends to allow fishing in July and August.

Returning to the Vernal Falls, several of our

party, including one lady, stood on a little narrow edge of rock, supported by the guide, and looked down some three hundred and eighty feet of frothy foam. A member of the English Alpine Club and myself went down a small hole in the rocks, and stood on a ledge below in order to see the rainbow. These winding trails, tracing their circuitous courses up among the mountains, are daily traversed by these sure-footed Indian ponies; and the astonishing manner in which they pick their way over logs and slippery rocks is wonderful. I have hardly ever known them to stumble, and should feel as secure as on the Swiss mules, proverbially famous for their safety.

Racing our mustangs back, we reached the hotel quite hungry and ready for dinner. We visited a curious old bar-room hung around with antlers, guns, swords, duelling-pistols with their bloody history attached, and old racing cartoons; in fact, a large edition of "Uncle Tom's" chop-house in New York. One curiosity is well worth mentioning, — that of a huge autograph volume, the repository of the names of visitors who have visited the valley during the last ten years. This book weighs some hundred and fifteen pounds, and contains fifteen thousand names. Among many well-known signatures, my attention was drawn to this: —

"J. A. GARFIELD, HIRAM, OHIO.

"No one can thoroughly study this valley and its surroundings without being broader-minded thereafter.

"MAY 15, 1875."

What marred the poetry of this fine sentiment was the fact, that several people told me that they had never met such narrow-minded people as these grand cliffs enclosed. Perhaps, if true, this comes from a feeling of imprisonment which even a casual visitor cannot help remarking; for, although the valley is some six miles long, its breadth is but a quarter of a mile, and considering the vast precipitous height of these cliffs,—some four thousand feet,—the sensation can be realized.

Our antiquated guide "Pike," the oldest hunter in the valley, catching a severe cold one morning while hunting deer on the mountain, almost completely lost his voice; and a very inquisitive, lean, gaunt, cadaverous-looking Eastern man kept worrying him with questions. Finally the visitor said, "How comes it that you appear to be deficient in your bronchial tubes?"—"Answering the questions of damn fools such as you," was the quick rejoinder.

1851 was the date of the first white man's entrance into the valley, which arose from pursuing hostile Yosemite Indians.

About nine o'clock P.M., while seated on the

veranda, we viewed one of the most romantic scenes that can be imagined. The moon, facing the falls, rose behind the craggy peaks, and in all the majesty of her silvery sheen lit up the falling waters. The pure, clear air brought out every shadow of the sombre pines; and, chiselled upon the view, the cathedral spires stood out like guardians of the valley, sentinels at their watch. So grand, so awe-inspiring, was the sight, that each was silent, and some recalled, —

“Upon such a night
I stood within the Coliseum’s wall,
Midst the chief relics of almighty Rome.”

I can remember but three instances during my travels that compare with this, — one, a sunrise on top of Mount Washington; another, my first glimpse of the Matterhorn with the moon rising from behind it; and lastly, as I now recall it, a summer’s night on Lago del Como. It was near Bellagio. The old ballroom of the château fronting the lake, which a moment previous had resounded with gayety, now lost even the echo of the whirling dancers; the lights burned low; musicians all departed; and only an occasional morsel of torn tulle, or faded flower ground under foot, bore witness of the gay throng which but a moment previous crowded every niche of the old baronial hall.

As three of us, quietly conversing in the dark night, sat muffled on the veranda but a few feet from the gliding waters, the deep-toned bell hanging in the belfry hard by began to strike the midnight hour; and, as the last vibration was trembling away on the breeze, the clouds broke, and the moon shone out in her cold brilliancy, bringing out every object on the deep waters. At that instant, upon the wind rose the sway and measure of a dreamy waltz, nearer and still nearer, until, within a stone's throw, a gondola floated by, an Italian girl in the stern playing the zithern, cheering on her lover as he swept his bark along.

The Yosemite Valley is one of the few things which will not disappoint you, however large your expectations.

For an accurate description I cite from the work of Professor J. D. Whitney, State geologist of California, which was published by the Legislature.

To justly estimate the description, it should be kept in mind that the bottom of the valley is about a mile below the surrounding country, and 3,950 feet above the sea. We will enter by the Coulterville trail, on the north side of the Merced River, which runs through the valley. (See map facing p. 69.)

"The valley is a nearly level area, about six miles in length and about half a mile to a mile in width, sunk almost a mile in perpendicular depth below the general level of the adjacent region.

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"Either the domes or the waterfalls of the Yosemite, or any single one of them even, would be sufficient in any European country to attract travellers from far and wide in all directions. Waterfalls in the vicinity of the Yosemite, surpassing in beauty many of those best known and most visited in Europe, are actually left entirely unnoticed by travellers, because there are so many other objects of interest to be visited that it is impossible to find time for them all.

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"Of the cliffs around the valley, El Capitan and the Half Dome are the most striking: the latter is the higher, but it would be difficult to say which conveys to the mind the most decided impression of grandeur and massiveness. El Capitan is an immense block of granite, projecting squarely out into the valley, and presenting an almost vertical sharp edge, 3,300 feet in elevation. The sides or walls of the mass are bare, smooth, and entirely destitute of vegetation. It is almost impossible for the observer to comprehend the enormous dimensions of this rock, which in clear weather can be distinctly seen from the San Joaquin plains, at a distance of fifty or sixty miles.

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"On the other side of the valley we have the

Bridal Veil Fall, unquestionably one of the most beautiful objects in the Yosemite. It is formed by the creek of the same name, which rises a few miles east of Empire Camp, runs through the meadows at Westfalls, and is finally precipitated over the cliffs on the west side of Cathedral Rock, into the Yosemite, in one leap of six hundred and thirty feet perpendicular. The water strikes here on a sloping pile of *débris*, down which it rushes in a series of cascades for a perpendicular distance of nearly three hundred feet more, the total height of the edge of the fall above the meadow at its base being nine hundred feet. The effect of the fall as everywhere seen from the valley is as if it were nine hundred feet in vertical height; its base being concealed by the trees which surround it.

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"The Virgin's Tears Creek, on the other side of the valley, and directly opposite the Bridal Veil, makes also a fine fall, over a thousand feet high, included in a deep recess of the rocks near the lower corner of El Capitan.

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"From near the foot of Sentinel Rock, looking directly across the valley, we have before us what most persons will admit to be, if not the most stupendous, at least the most attractive, feature of the Yosemite; namely, the Yosemite Fall *par excellence*, that one of all the falls about the valley which is best entitled to bear that name. The finest view of this fall is in a group of oaks near the lower hotel, from which point the various parts seem most thor-

oughly to be blended into one whole of surprising attractiveness. Even the finest photograph is, however, utterly inadequate to convey to the mind any satisfactory impression or realization of how many of the elements of grandeur and beauty are combined in this waterfall, and its surroundings and accessories. The first and most impressive of these elements is, as in all other objects about the Yosemite, vertical height. In this it surpasses, it is believed, any waterfall in the world with any thing like an equal body of water. . . . The vertical height of the lip of the fall above the valley is, in round numbers, 2,600 feet.¹

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"The fall is not in one perpendicular sheet. There is first a vertical descent of fifteen hundred feet, when the water strikes on what seems to be a projecting ledge, but which in reality is a shelf or recess, almost a third of a mile back from the front of the lower portion of the cliff. From here the water finds its way, in a series of cascades, down a descent equal to six hundred and twenty-six feet perpendicular, and then gives one final plunge of about four hundred feet on to a low *talus* of rocks at the base of the precipice.

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"One of the most striking features of the Yosemite Fall is the vibration of the upper portion from one side to the other, under the varying pressure of the wind, which acts with immense force on so long a column. The descending mass of water is too great

¹ The great Horseshoe Fall at Niagara is but 154 feet high. The fall on the American side is nine feet higher.

to allow of its being entirely broken up into spray ; but it widens out very much to the bottom, — probably to as much as three hundred feet at high water, the space through which it moves being fully three times as wide. This vibratory motion of the Yosemite and Bridal Veil Falls is something peculiar, and not observed in any others, so far as we know ; the effect of it is indescribably grand, especially under the magical illumination of the full moon.

“At the angle where the Yosemite branches, we have, on the north side, the rounded columnar mass of rocks called the Washington Column ; and, immediately to the left of it, the immense arched cavity called the ‘Royal Arches.’ Over these is seen the dome-shaped mass called the North Dome.

“The Half Dome, on the opposite side of the Tenaya Cañon, is the loftiest and most imposing mass of those considered as part of the Yosemite. It is not so high as Cloud’s Rest, but the latter seems rather to belong to the Sierra than to the Yosemite. The Half Dome is in sight in the distance as we descend the Mariposa trail, but it is not visible in the lower part of the valley itself : it is seen first when we come to the meadow opposite Hutchings’s. It is a crest of granite rising to the height of 4,737 feet above the valley, seeming perfectly inaccessible, and being the only one of all the prominent points about the Yosemite which has never been, and perhaps never will be, trodden by human foot. It has not the massiveness of El Capitan, but is more aston-

ishing, and probably there are few visitors to the valley who would not concede to it the first place of all the wonders of the region. Even the most casual observer must recognize in it a new revelation of mountain grandeur: those who have not seen it could never comprehend its extraordinary form and proportions, not even with the aid of photographs.

“The first fall reached in ascending the cañon is the Vernal, a perpendicular sheet of water with a descent varying greatly with the season.

“From the Vernal Fall, up stream, for the distance of about a mile, the river may be followed; and it presents a succession of cascades and rapids of great beauty. As we approach the Nevada Fall, the last great one of the Merced, we have at every step something new and impressive.

“The Nevada Fall is, in every respect, one of the grandest waterfalls in the world, whether we consider its vertical height, the purity and volume of the river which forms it, or the stupendous scenery by which it is environed. . . . To call the Vernal four hundred and the Nevada six hundred feet, in round numbers, will be near enough to the truth. The descent of the river in rapids between the two falls is nearly three hundred feet.

“The elevation of the bottom of the valley above the sea-level is, from a combination of several series of observations, 3,950 feet. Through the valley flows the Merced River, about seventy feet in width, making many sharp and curiously angular bends, touching the *talus* first on one side and then on the other.”

This valley was a secret fastness of the Yosemite tribe until March, 1851, when it was discovered by Major Savage, Dr. Bunnell, and their party, while in pursuit of hostile Indians. It was once a favorite resort of the grizzly bear, from whence its name. The Major had five Indian wives at one time.

There are two ways of entering the valley, — one, by rail to Milton, and thence by stage *via* Priest's and Crocker's, in which case you enter by the Coulterville trail on the north side of the Merced River: the other is by rail to Madera, thence by stage *via* Clark's; in this case you enter by the Mariposa trail on the south side of the Merced. The Mariposa way is much the longer, but I hear that the stage part is easier.

After visiting the Yosemite, we saw the high mountains of Alaska, capped with eternal snows and mirrored in the still deep waters at their base; the lofty castellated cliffs along the banks of the Columbia River; the vast Hoodoo ranges; the boiling caldrons, the geysers, the falls and cañons, in the Yellowstone Park. But no scenery comes back to the memory with such amazement as that of the Yosemite Valley, and nothing in the valley seems so awfully grand as the granite walls of El Capitan.

The air of the valley is heavy and close; it seems never to have been ventilated: and the mosquitoes are of the most vicious kind.

CHAPTER IX.

FROM THE YOSEMITE TO THE CALAVERAS GROVES.
—THE BIG TREES.—NORTH AND SOUTH GROVES.
—FISHING, BEAR-HUNTING, ETC.

FROM the Yosemite we go to the "Big Trees" of Calaveras County, far the largest of all. They are north-west from the valley, and reached by Sonora and Murphy's, as seen on the map. The distance is many miles, and much of the road is rough. It is partly over the same road by which we came out, and takes two days.

At Sonora, Mr. and Mrs. Ruthven, who had been delightful travelling companions, concluded to abandon a journey to the Trees, and return to San Francisco. My father and I went on alone.

On all sides we encountered signs of the gold-fever of 1849,—soil torn up, rocks blasted, trees uprooted, green pastures devastated, streams turned from their course, rich land given to aridness; pastures, wheat-crops, fruit, vineyards, all set aside by the golden dreams

of sudden wealth. As we sped along, glancing at the mining operations either in full sway, or at the machinery left deserted for lack of means, — here and there were Chinamen sluicing, or the lonely “prospector,” with his rifle and solitary dog, seeking his rich “pocket,” or sounding for a vein; now and then coming upon an hydraulic company tearing down the hills with their powerful stream; and not far off the poorer “*placer* miner,” — we thought of the remark of Senator Jones of Nevada, who said to father one day, “Every dollar of gold which California has produced, in general average, cost three to get it.” The truth of this estimate can be realized when we consider the useless shafts which have been sunk, the vast amount of machinery which proved of no value, the millions of days’ labor which were fruitless, and the millions of dollars which were spent in mining explorations which yielded no return. But several miners who had been prospecting and digging for thirty years, and were still *poor*, told us, that, with all the hard labor and privation, there was a pleasure in the hope of great luck that never ceased to lure them on, in spite of so many years of disappointment. Gold-mining and gambling are not unlike.

The Chinamen, accustomed to their irrigated rice-fields, and being already inured to the ex-

posure of wading, rank among the best miners on the coast, their endurance being remarkable; and as one watches them climbing the hills with their long, swinging walk, you can easily appreciate their usefulness as soldiers, capable of undergoing forced marches under a burning sun. The *placer* Chinaman derives from his washing, under the best circumstances, some two dollars a day, out of which their largest expenditure is for opium, the Chinaman's scourge. This deadly narcotic they sometimes chew in the mines, claiming that its use exhilarates, and enables them to undergo the unceasing toil of their vocation. The washing for dust is nearly all done by this race; Americans actually being expelled from their original occupation by this strange people, whose chief food, rice, they buy at a low price from their own merchants, and, their systems being habituated to living without meat, their visits to a "Bignon," Delmonico's, or "Lion d'Or," are naturally very rare. Ordinary linen-washing they have also brought to such a low rate, through their economical way of living, that none others can compete; and thus, as is generally known, they have almost a complete monopoly of this business.

Our driver informed us concerning the wages which experienced "whips" get on the road.

Their salaries average from sixty dollars to eighty dollars a month for four and six horse stages, drivers of ordinary vehicles receiving some thirty dollars to forty dollars. These fellows are old veterans, knowing every turn on the road; and the two or three hundred miles which their duty sends them over is what the "Mississippi panorama" was aforesaid to the old pilots, in which every snag and shoal was as clearly placed and marked, in their minds, as the signals are now to an engineer on the railroad. Occasionally we noticed that five horses were used before a stage, three of them leaders, and two wheelers. We found, that, on crooked roads, five pulled fully as much as six, the two leaders of the latter number being hardly serviceable for abrupt turns; but, in a straight course, six were capable of dragging more than five.

We met numerous wagons heaped up with dirt going to be "washed out;" and ascertained that four bits (fifty cents) was calculated as the profit upon each load. Companies or private individuals frequently start water-works for washing, and mills for quartz-crushing, at fixed rates; and thus even here chances for studying political economy are afforded.

We passed several nests of the poisonous tarantula, with their neatly constructed houses.

Crossing in the chain-ferry propelled by the current, we met on the other side a madwoman, who greatly amused us by her fire of invectives, hurling anathemas at all the world, decrying the general belief in a future life, and pointing out with immense cunning the weakness of our public men.

On the 20th of June we reached the "Trees," and found an excellent hotel in the very grove. It is kept by Mr. J. L. Sperry, a man of excellent good sense, who understands his business. He owns the grove, and the South Grove also. The climate here is charming; the air delightfully cool, clear, and elastic. This grove contains ninety-three large trees, and many small ones. You cannot conceive the impression which these will make until you have seen them, and, climbing the ladders which rest upon several of the fallen trunks, you walk over their vast bulk, and look down to the ground some thirty feet below you.

There is great diversity of statement as to their size. The account published by Mr. Whitney, ten years ago, makes the tallest standing tree three hundred and twenty-five feet high and forty-five feet in circumference; he calls this the "Keystone State." One, called "Starr King," he reports as fifty-two feet in circumference and two hundred and eighty-three

feet high. Surely there is some mistake in the print, or error in the measurements, or else a confusion of names. Later, Professor C. T. Jackson in 1857 measured the "Starr King," and found it three hundred and sixty-six feet high. The Mother of the Forest has its bark off up to the height of a hundred and sixteen feet. The bark thus removed was set up at Sydenham Palace, where it was burned many years ago. This tree is reported in Mr. Whitney's book to be three hundred and fifteen feet high and sixty-one feet in circumference. The Whitney measurement was made six feet above the ground, and where the bark had been removed. It should be noted that these trees have no tap-root: they are considerably fluted, like the cedar; they flare a good deal at the base, and the bark near the bottom is from nineteen to twenty-three inches thick; it is of a reddish-brown color, soft and fibrous, like the outer shuck of a cocoanut. Professor Jackson makes this tree three hundred and twenty-seven feet high. One of its roots, five feet from the tree, measures nearly nine feet in circumference. There is much room for honest difference regarding the height of the standing trees; but none where the trees have lately fallen, and none as to the circumference of any one. On the 24th of June we measured the

"Old Dominion," which fell in April, 1882, and it is three hundred and fifty feet long. Another fallen tree is "Hercules," which fell in 1862. It measured three hundred and twenty-five feet long, and ninety-seven around the base.

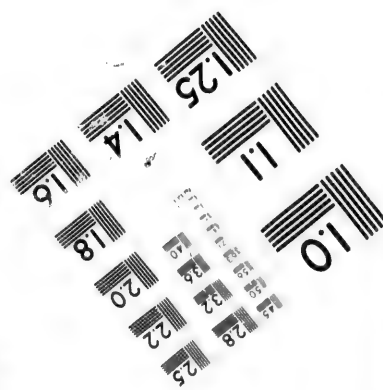
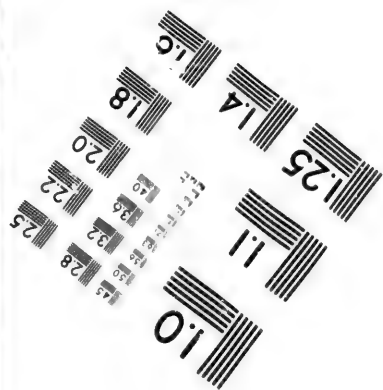
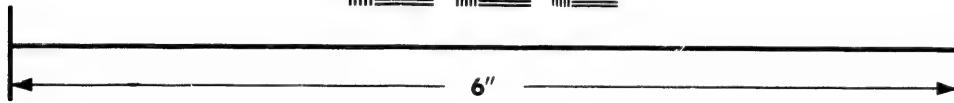
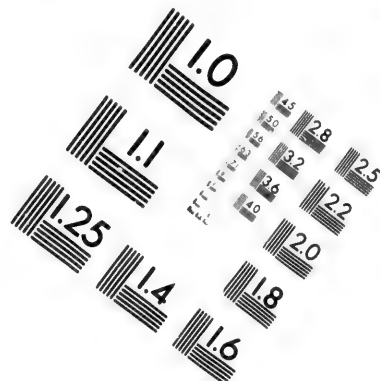
In 1853, the next year after the grove was discovered, some vandals, with the mistaken idea that they could make money by exhibiting sections of it, cut down one of the largest trees. Neither saws nor axes could effect their object, but the tree was felled by boring it through and through with pump-augers and driving-wedges on one side. It took five men twenty-five days to accomplish this unpardonable devastation. This tree at the base measures ninety-two feet in circumference. Its rings proved that it had been growing at least thirteen hundred years. Some of the "Big Trees" are believed to be over two thousand years old; less old, I believe, than some of the old yew-trees of England. One of the finest trees is the "Empire State," ninety-four feet in circumference. The "Father of the Forest," having fallen long before the forest was discovered, has given rise to much controversy. Hittell, in his "Resources of California," says that it must have been four hundred and fifty feet high, and forty feet in diameter; but Professor Whitney discredits this estimate. A hollow

burnt-out cavity extends through the trunk about two hundred feet, large enough for a man to ride through on horseback. The "Fallen Monarch" is believed to show proof, from the surrounding trees, that he fell much more than a hundred years ago; and is chiefly interesting as proof of the lasting qualities of the wood, much of it being perfectly sound.

The morning after arrival at Sperry's hotel, I went trout-fishing, with Andrew Jackson Smith as my guide. This man became my especial admiration,—a brave and honest man: his like I have never seen. I will try to present him. Conceive a man six foot two, with broad shoulders, but gaunt, lean, long-armed, narrow head, and Roman nose, mouth and teeth like a gray squirrel as he gnaws a nut; hair and beard long, yellow, and untrimmed, an immense straggling imperial, which he occasionally twisted in his hand; eyes of a yellowish-gray, small and calm, honest, and near together; fingers very long and bony; hands and face tanned the brown color of his overall clothes; his legs very long and sinewy, ending in coarse heavy boots; and on the back of his narrow head a battered old drab sombrero hat: add to this a fearless mien and a kindly voice, and you have before you the old trapper, whom I heartily commend to any one who needs the services of a skilled fisherman and a trustworthy guide.

In the early morning, June 20, Smith and I started alone, on our horses, for the trout-streams. He cocked his smashed hat on one side, and mounted, taking the fish-basket containing our lunch, and each of us had our rods. Over hill and mountain, across the Stanislaus River, — which, although containing the largest trout, was still too high, — “loping” down the hills, passing at intervals the beautiful fresh ice-plant, which springs up as the snow disappears, and then as soon fades away at the approach of hot weather. I rode a Mexican *broncho*; that is, a pony trained for the lariat and lassoing steers. Smith gave me a lesson in picking up a handkerchief when at full gallop, and in picking up coin from the ground, — which feat, owing to the Spanish way of securely *cinching* a horse, may be accomplished: the English way of fastening the girth of the pig-skin saddle makes the chances of its turning too great for safety, especially as there is no horn to hang to while lowering one’s self to the ground. The Mexicans all over the West have various ways of exhibiting their skill; one favorite amusement being “chicken-pulling.” A hen or cock is firmly embedded in the earth, leaving nothing but its head stretching itself in all directions: our Mexican competitor rides off a short distance, and then dashing forward at full gallop





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lowers himself from his seat, and seizes, if he be so fortunate, the neck and head, and tears it from the body; though, of course, like "tent-pegging" in England and India, there are more misses than wins, for its accomplishment needs a perfectly trained horse, and steady nerve. After some serious up-hill climbing, we reached "Grouse Spring," so called by Smith one year when out deer-hunting, on seeing twenty-six grouse roosting in a big pine which overshadowed the water.

My companion entertained me with various interesting stories, and impressed me, as his reputation afterwards confirmed, with a feeling that he was not telling the usual hunters' yarns with which these old characters like to arouse the wonderment of "tender-feet." Having killed several "grizzlies" during his life, he considered the following rules the most reliable guide for their slaughter. These rules have been approved by many camp-fire hunters: I here give them for the benefit of those desirous of some day possessing a necklace of claws:—

1st, Do not attempt to kill a grizzly by the first shot unless he charges you, and the need of shooting be inevitable: then aim directly for the centre of his breast, sighting a little patch of grizzly, wiry hair always visible.

2d, Wait, if possible, until the bear is going

away from you, as the chances of your getting in a couple of bullets before he sees you are much more likely.

3d, Don't imagine, that, like other beasts or animals, shooting a grizzly through even the very core of the heart necessarily prevents him from having strength to kill three men before death.

4th, Aim a few inches above the top of the shoulder, just under the spinal column: this will shatter and so cripple his fore-legs, and impede his progress, as to enable you to get in with safety enough lead to finally stop his career.

5th, A ball precisely placed in the brain will almost always cause instant death; but as, when the bear moves, he continually swings his snout from side to side, and is never still, if the man be not a quick shot and a dead shot, it were better, unless in imminent danger, to leave the mark unattempted, especially since the retreating formation of the bear's skull, when facing him, render the chances great that the bullet will glance off.

Smith agrees with the many other authorities consulted, that a grizzly will not attack unless you are directly in his trail, or unless it be a she-one with cubs. Grizzlies, like other bears, prefer flight, and will do their utmost to avoid a conflict; but let them once feel lead, and no

animal on earth can equal them in point of ferocity, or tenacity of life.

The Indian tiger is generally pursued on a *houdah*, or "pad elephant;" and the African lion, when shot through the heart, is much inferior in power to the dreaded "grizzly." Livingstone, in his book on Africa, corroborates the many authorities with respect to the folly of making the lion the king of beasts, if regard be paid to courage; and goes on to say that his roar, when heard at a distance from a camp-fire, can hardly be distinguished from an ostrich's "trumpeting." Jules Gérard, the lion-hunter, in his interesting work, plainly shows how a well-directed ball through the heart, given behind the fore-shoulder, will generally produce instant death, or, at all events, lay low this so-called "king of animals." His title is derived more from his massive head, with its magnificent wealth of mane, than from intense courage. As regards the "cinnamon," authors, and those old hunters whom I have consulted, seem to concur, that, although equal in ferocity, it lacks the "grizzly's" power of surviving wounds, and dealing death in his last embrace.

One method of escape has been adopted by old hunters occasionally with success; namely, by running straight along a steep hillside. The

bear rarely runs in a straight line; and this peculiarity, combined with his great weight, prevents his retaining his balance on a slope; and this has occasionally saved a man's life. As regards the climbing of trees, although the report is circulated that the "grizzly," from the length and form of his immense claws, alone of the bear tribe, cannot ascend a tree, this is true only of those trees entirely bereft of limbs within his reach, or whose branches are so weak as to give way beneath his great weight. The cubs can run up a smooth trunk as easily as a cat, by the aid of their claws.

Revenons à nos moutons. We dismounted on the bank of our little stream, unsaddled, unbridled, and tethered our ponies, jointed the poles, rigged the lines, and took our first throw, one using a brown hackle, the other a black gnat, attached to six-foot leaders. The bottom being very clean sand with many bowlders dotting the bed, we fished down stream, there being from these causes not much danger of roiling the "riffles" in which the greater part of our casting was done. The "white miller" is used in this region, especially towards nightfall; but we found, during the day, neutral-tinted flies with dark bodies were the most catching. Beginning at nine, hour after hour we crawled and slipped over huge rocks, or

waded up to our waists in the water, over ground so rough that visitors had as yet left it untouched. The bushes on either side grew to the water's edge, and made bank casting impossible. We left off at four, with sixty-nine slashed red trout somewhat less speckled than Eastern spotted fish, but fully as gamey.

My finest day's lake-trout fishing was on Lough Corrib in Ireland, close to Cong, twenty miles north of Galway, during 1879. We used an otter, whose use is the worst kind of poaching. Directions: Take a piece of wood, half-moon in form; attach through its centre a strong line, some thirty feet in length; and all along, at intervals of four feet, allow six other lines with leaders and flies to dribble over the surface. After paying out this species of diminutive seine from the boat, keep up a regular slow stroke, having due regard to the wind's direction; fasten your end to the boat, and await results. With this deadly contrivance, on this lonely and wild lake, we captured in two hours some twenty large trout, averaging three pounds, besides others caught trolling with a ten-foot rod and spinning live bait, the small chub being cleverly fastened to a "gang" of six hooks.

On the 23d of June, in company with a very interesting young lady, Miss H——, we rode

to the South Grove, which is six or seven miles distant. There is only a bridle-path, and that is a steep and stony trail. We have to cross the Stanislaus River. This grove also belongs to Mr. Sperry, who has there more than a thousand acres. This grove contains 1,380 large trees.

The "Massachusetts" measures at the base a hundred feet in circumference, and is said to be three hundred and eighty feet high.

The "Ohio" has a base circumference of a hundred and four feet, and is said to be three hundred and twenty-eight feet high.

The "New York" is a hundred and six feet in circumference, and three hundred and forty feet high.

"Cyclops," a live tree, has a burnt cavity at its base, in which twenty-four men, each on horseback, are said to have been at the same time. We cannot say how true this statement is, but it did not seem impossible.

The "Palace Hotel" is a hundred feet in circumference, with a burnt-out cavity of fifteen feet in diameter and ninety feet high; and yet the tree is alive.

"Old Goliath" is a fallen tree. It measures at the base a hundred and five feet in circumference, and measures, as it lies, two hundred and eighty-one feet. It is easy to tell the size :

a limb alone measures twelve feet in circumference. This tree has its bark all perfect. It retains its vast size longer than any fallen tree we have seen. As you ascend, and walk over its huge bulk, you form some conception of its size, and you can hardly believe that it is indeed a tree. Its magnitude impresses you more than that of any standing or fallen of these giants of the forest.

Near by is a living tree called "Smith's Cabin," named after the old trapper. He was our guide on the visit to these trees, and on the ground gave us the particulars of his adventures. In reply to the question from what State he came, he said:—

"I came out of a wooden-nutmeg machine in Hartford County, Conn. I got the mining-fever early; and I came to California, and went to diggin' gold. I rather liked the business, though it was hard work. I had no luck, didn't make much, and lost that; then went to trapping, and sold what I could shoot to the miners. I lived in that 'ere tree two years; nobody near. It was rather lonesome at night. I read some; had a horse, my dog and gun; they all slept with me in that 'ere tree. It was rather a hard row of stumps. I tried to get this grove by pre-emption, squatting, and improving. I had an axe, and built a strong shanty here; but

somehow I didn't enter any claims accordin' to law, and was cheated out of it — hard row o' stumps out here, without any thing to pay lawyers. But I am contented; have had a fine time; never cheated nobody. At night, when the wind blowed, rather lonesome sometimes with only dog and horse. One night there was a terrible gale; trees were constantly coming down, and I didn't dare go out of my old tree. Finally this Old Goliath came down, and shook all round like an earthquake. I was a little scared; knew I could not help it, and hoped my old tree would weather the storm. It did, and stands there now."

The hollow part of Smith's Tree is sixteen by twenty-one feet, plenty large for a man, horse, and dog. All these oldest trees have suffered from fire, and men of science say that "Old Goliath" is at least two thousand years old. Their great age is evinced also by the sugar-pines, two hundred and fifty feet high and twenty feet in circumference, growing near by, and showing no signs of fire. The great trees are akin to the redwood, and resemble cedar. Being resinous at the heart, they burn long, and many of the older ones are hollowed out by fire, and yet not dead.

Smith discoursed quite indignantly upon the depredation which the Chinamen were making

upon the white miners, — how one Celestial, somewhat better than the majority of his creatures, would get in his employ six or a dozen, and send them over the country prospecting for gold: if one happened to strike a rich vein, he immediately collected and centred all upon this one spot. Smith, himself an old miner of 1849, protested, and declared this to be entirely against the general tenor of the unwritten mining law, that man should be in this state of seridom.

Our guide, so accustomed to wandering in the loneliness of unbroken forest, who in this very grove had spent two years in the trunk of a tree, and whose years rolled by regardless of railroads, suspension-bridges, telephones, and Panama Canals, spending weeks in the wilderness with no friend but his mongrel deer-hound, and an old muzzle-loading rifle, — the poor old fellow, feeling that he had been always honest, gave vent to the expression, "Ah, sir! when you are unaccustomed to the treachery of the world, honest men find life a hard row of stumps." Like most of those we met, he was vehement in his denouncement of the Indian; and he told us how the very redskins to whom he had been so kind, broke into his cabin in the tree one day during his absence on a deer-hunt, and stole the few possessions which, to

a poor trapper, are his all, — kettle, axe, and saucepan.

The Mariposa Grove, sixteen miles south of the Yosemite Valley, contains a large number of splendid trees; none so high by more than fifty feet as some of the Calaveras trees, but, according to Professor Whitney, of larger circumference. No trees of this kind have been found outside of California, or even north of the Calaveras Grove. According to Dr. Müller, the eminent botanist, the eucalyptus has been found in Australia four hundred and eighty feet high, but no one so large around as the largest of the California trees. These trees are named *Sequoia gigantea*, after a Cherokee Indian chief of half blood who invented an alphabet for his tribe. These trees were first discovered in the Calaveras forest, in the spring of 1852, by Mr. A. T. Dowd, a hunter, while in pursuit of a wounded bear. His statement no one at first believed. In 1853 Dr. Findlay published a description of this tree in Gardner's "Chronicle of London," and called it *Wellingtonia gigantea*. In 1854 eminent botanists concluded that the Californian redwood was of the same genus as the "Big Trees," and this species was by them named *Sequoia gigantea*. The redwood, so abundant and so valuable for timber, grows along the Coast Range from 36° to 42°. Near

Santa Cruz is a growth of great beauty, in which is a tree fifty-six feet in circumference and two hundred and seventy-five feet high. Professor Whitney supposes that there are many redwoods from two hundred and fifty-one to three hundred feet high. Their wood, like that of the "Big Trees," is of reddish color, hard, strong, and enduring.

On the road before reaching the Yosemite Valley, we drive through the body of the "Dead Giant," a sequoia tree. It is dead, and most of the outside has been burned away; and yet of the solid wood there is left a trunk whose diameter is about thirty feet. A roadway ten feet wide and twelve feet high is cut through the firm wood, and coaches with four horses daily drive through the old giant tree. Mr. Hutchings, the guardian of the Yosemite Valley, told us, that, after careful investigation, he was satisfied that when the bark was on, and before fires had reduced the trunk, the tree was forty-two feet in diameter.

The Yosemite Valley and the Mariposa Grove are a reservation, given by the United States to the State of California to be forever preserved.

Last August, while approaching the Yosemite by the Mariposa trail, a stage-coach was stopped by armed robbers, and each person was robbed of every thing he had about him.

In the afternoon of the 24th, Mr. Sperry kindly sent us in his private carriage twenty miles through the pine-woods to Murphy's, where we were to take the stage in the early morning for Milton. On our drive we saw large numbers of jack-rabbits feeding in the fields, often rising on their long hind-legs, and lifting their immense ears. A large wildcat crossed the road, and scuttled away into the woods.

We took the rail, and lunched at Stockton, reaching San Francisco at seven o'clock the 25th of June, after sixteen hours of dusty travel.

It takes twelve days to fairly visit the Yosemite and the "Big Trees" and return to San Francisco.

During this trip we saw mining enough, — *placer*-mining, quartz, and hydraulic mining also; and we saw the many acres that had been dug over by toilsome hands in pursuit of gold: wherever that was done, barrenness appeared.

CHAPTER X.

RETURN TO SAN FRANCISCO.—THE CLIMATE.—PUBLIC AND PRIVATE BUILDINGS, ETC.

ON the 25th of June we returned to San Francisco, and were again at the Palace Hotel. The climate is peculiar, a sea-fog every morning which clears off before noon, revealing a warm sun: this is soon followed by a wind from the ocean, which is cold; there is scarce a summer day in which you do not need an overcoat if you drive out. But for the dust (as there is no summer rain) it would be a charming climate, and it is an attractive place as it is. There are more than two hundred and fifty thousand inhabitants, made up of every nationality. The streets are well lighted, partly with electric light: they are generally wide, and the architecture is very imposing. The Palace Hotel is very high, occupies an entire block, and is built around a spacious court into which carriages are driven, after the style of the Grand Hotel in Paris. There are several other magnificent hotels and public buildings, im-

mense commercial blocks, and some of the most spacious and striking private residences on this continent. Except the basement story, the houses are generally built of wood: they are painted a dark drab color, which seems to harmonize well. The city is very uneven; and some of the streets run up hills which are very steep, and would be almost inaccessible but for their cable-railroads. On one of the highest hills are the large mansions of Gov. Stanford, Mrs. Hopkins, Mr. Crocker, Mr. Colton, and others. The view from them is superb, and the interior of some of them is very splendid. The club-houses are good; and the Pacific, where an entertainment was given to my father, is new and very fine. The hospitality of the place is unbounded, and our visit was made exceedingly pleasant.

Mr. William T. Coleman took us fifteen miles up the bay to his country-seat at San Rafael, where he has a large estate and a charming house and pleasant household, made doubly pleasant by a dinner where we met a number of eminent men and attractive women. We came down the bay the next day, and had a fine view of the Golden Gate and the beautiful scenery.

Mr. Coleman, an eminent citizen and one of the early residents of San Francisco, was at the

head of the "Vigilance Committee" in 1856, which saved the city from pillage.

To him we are indebted for numberless courtesies which added largely to the pleasure of our stay.

We were introduced at the various clubs. The "Union," "Bohemian," and "Pacific" clubs, and others on the coast, have the excellent plan of so contracting with the wine-merchants as to allow the members to purchase their wines at the same price as the clubs themselves.

The Pacific-Coast clubs differ from our New-York ones, such as the "Union" and "Knickerbocker," in the mode of election. The following is taken from the constitution of the "Arlington Club" of Portland, which was copied from the "Pacific" and "Union" of San Francisco: —

ARTICLE III.

ELECTION OF REGULAR MEMBERS.

SECTION I. All applications for admission to regular membership shall be submitted to the Board of Directors, and approved by them, prior to the posting and balloting for the applicant, as hereinafter provided.

We went to Oakland as the guest of Mr. Hubbard, where we spent another pleasant afternoon. I tried a bareback ride on his daughter's

mustang, and, to my surprise, ran him without a tumble. In the evening Mr. G——, jun., gave me an excellent dinner at the noted "Marchands" (the Maison Dorée, as regards the *cuisine*) of San Francisco. Then we went over the Bohemian Club; and afterwards behind the scenes at the California Theatre, where they were playing "The Silver King."

The next day my father was much pleased to meet his old friend and classmate, the Rev. Dr. Stone, now so eminent as a preacher.

CHAPTER XI.

MENLO PARK. — GOV. STANFORD'S HORSES. — MR. FLOOD'S COUNTRY PLACE. — MR. D. O. MILLS.

MAJOR RATHBUN invited us to Menlo Park, where he has a cottage fitted up in peculiarly attractive taste. He has charge of Gov. Stanford's place during the governor's absence in Europe; and took us over the estate of six thousand acres, on which there are six hundred horses and colts of various ages, in training. The system has perfect organization, and as yet the governor has not sold any horses. Two hundred and fifty men are engaged on the estate.

Although the governor has not until lately paid attention to running horses, his stock is said to be the third-largest private collection in the world. Here one sees the horse in every stage, from the foal to the old stallion with his long pedigree. The governor believes in the little oval circuses, where the young are trotted every day free from harness. He maintains, that, from their earliest existence, regular daily

exercise develops the horse's speed better than to allow the colt to remain during his younger months inactive. This he is said to have proved. Some ten or twelve stallions are kept, all of which contain good racing-blood from noted sires.

Here it was that the experiment of successfully photographing the movement of trotters at full speed was performed; and my readers may remember the many illustrations which appeared in the sporting-papers, depicting the curious and almost impossible positions which the horse assumed. To effect this result, about a dozen very fine wires were drawn parallel to each other over the race-track, at equal distances apart, which were connected with as many cameras. As the horse in his speed successively broke the wires, the slide opened, and an instantaneous photograph was taken of the horse's movement as he appeared during that brief second.

Races take place on the various race-courses of the farm; and the times of both trotters and runners are accurately taken, improvements recorded, and the horses classed accordingly. The paddocks spread over a great area of ground, and the novelty of the sight is one not forgotten.

Menlo Park is a natural park, with very large,

scattered oaks, with pasture and arable land between. It is thirty-two miles by rail, on the way south towards Monterey.

The country-seat of Mr. Flood is near by, where we were invited to go. It is immensely large, superbly decorated and furnished: each room is different. It stands in the midst of a large green lawn, kept fresh by irrigation, and the lawn is bordered with native trees. The outside of the pile is entirely white; and, as you enter the grounds, the white contrasted with the green reminds you of the Castle of Pierrefond in the Royal Forest of Compiègne. We saw Mr. and Mrs. Flood, their son and daughter. They were sensible, well-mannered people, without the least pretension.

From the rail-car, we saw in the distance the handsome country-residence of D. O. Mills, Esq.

Returning to the city, we met Mr. McAllister, an eminent lawyer of San Francisco; Judge Hoffman, formerly of New York; Mr. Justice Field, well known as one of the ablest judges of the Supreme Court of the United States; and also Mrs. Field.

We had letters to Messrs. Goodall, Perkins, & Co., agents of the Oregon Railway and Navigation Company. Mr. Perkins was lately governor of California, from whom we received most valuable civilities.

CHAPTER XII.

CLIFF HOUSE.—SEA-LIONS.—GOLDEN-GATE PARK.

June 30.—After lunching at Black Point with Gen. Schofield, commander of the Pacific troops, formerly commandant of West Point, we visited the Cliff House, and saw the noted sea-lions sunning themselves on their favorite rocks. Their grotesque antics proved no small attraction to visitors, and their roaring can be heard a long distance. They grow to an immense size, some of them reaching from two to three thousand pounds. They crawl up the cliffs by aid of their flippers, in a most slouchy manner. The noted old lion called Gen. Butler, weighing more than two thousand pounds, gave us an exhibition of his prowess: seizing a seal in his jaws, he threw him some ten feet into the sea, and then waddled up the rock again to enjoy his favorite basking. Roaring, and fighting, and tumbling into the sea, varied their lazy lolling in the sun. As if conscious of their safety (the law forbidding them to be killed), you can see from fifty to a hundred

near midday, lifting themselves up the rocks, and making their hideous bellowing. They are terribly destructive to the fish in the bay. Thousands of black "hell-divers," ducks, and white gulls (also protected by law), use the same resting-places in safety; so that strangers are fully repaid for their drive to the sea. Returning through the Golden-Gate driving-park, where the limit of speed is ten miles an hour (four more than the Central Park), we reached the "Palace," just in time to meet Judge Field, on his return from Oregon.

July 1. — To-day, in company with Judge Field, we went over Mr. Crocker's house on Nob Hill, which is immensely large. The suite, including hall, dining, and billiard rooms, decorated by Herter, is quite imposing.

CHAPTER XIII.

THE CHINESE. — WILLIAM T. COLEMAN'S SPEECH. —
THE CHINESE QUARTER.

CALIFORNIA is a State of vast size and boundless resources. She was admitted as a State on the 9th of September, 1850; and her growth has been very rapid. That San Francisco will become one of the greatest cities of the world, there can be no question.

The Chinese quarter of the city is a unique place, and again we visited it. At night it presents strange scenes. Without a guide, a stranger would be lost in the labyrinth of lanes and turns and numberless stalls and bewildering darkened lights. It is visited by both men and *women*; and many odd things are seen, some of which are not told.

The theatre, where the same play continues through many nights, we saw once more, where all the performers are men; where the music is made of the most clashing, unmelodious noise; where no curtain drops upon the stage; where the actors are clad in the most gorgeous robes;

and where the fighting with swords is conducted in the most preposterous way,—the combatants constantly whirling around after clashing their swords, and then standing still for a while with their backs toward each other, then whirling in the swiftest possible way, and going at it again, and thus continuing this absurd combat for a long time, when the other actors entered, and squalled with the most harsh and discordant voices. There is no more melody on this Celestial stage than in a sawmill.

The tea-houses are much frequented. Tea is made by putting a few leaves into a cup, filling the cup with boiling water, then covering it for a few minutes with a saucer, and then pouring it out to drink: it is thus freshly made, and has this advantage. The cunning Chinese sells it to fools for seven dollars a pound, as something impossible to obtain elsewhere; when, in fact, you can purchase better in New York for seventy cents.

The Chinese question is curious and perplexing. The following speech of Mr. Coleman, delivered in San Francisco a year and a half ago, fairly expresses the sentiment of many of the better class in that city:—

“FELLOW-CITIZENS,—I will treat the Chinese question in different aspects, probably, from others, and, as we are limited to ten minutes, will come

directly to the subject. There are three things that can be said in favor of the Chinese that have attracted many people, and given them a status, where, perhaps, a fuller acquaintance with them, and a fuller consideration of all questions involved, would not have been so favorable to them; viz., that physically, mentally, and politically, they are equal, if not superior, to the average of mankind. Beyond that, the comparison is against them. Physically, as laborers in the field, on the farm, heavy work and light, in many departments, and as operatives and artisans, they show quickness, strength, sprightliness, endurance, accuracy, and fidelity, in a great degree. Mentally, they are quick, acute, and correct in their perceptions, apt, strong, and tenacious in memory, and rarely fail in the lessons that have been taught them. In the higher walks we know that as scholars, statesmen, and diplomats, they are astute and far-reaching, and held in great respect. Politically (and by politically I give that meaning which embraces politeness, adroitness, cunning, and artfulness), they are shrewd and circumspect, and full of resources and adaptability.

"If we could continue these favorable comparisons, there would be no need for this meeting to-day, nor the excitement and active opposition that have been made, and we are now making, and *must make*, against their continued immigration; but unfortunately, or possibly fortunately, here the fair comparison ceases. We find that in their habits, customs, thoughts, impulses, education, action; in their ethics, morals, and religion (or lack of religion); in their social and political views, — they are so different from us, so radi-

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cally and essentially divergent, and in all so fixed, as to make it undesirable for them to be with us or near us, and impossible for them to become citizens, or part and parcel with us. Nor do they *wish* to become a part with us. They come to this country merely as adventurers and gleaners, or, in their estimation, as conquerors of fortune. They come for a term, a cruise, a campaign, leaving behind their families and all they love and cherish and respect, — come purely seeking the “golden fleece,” to carry it back with them, or remit it to their homes, and to follow it; never dreaming of permanently quitting their own country, or severing their allegiance, adherence, and submission to the laws and will of China. They bring with them, and maintain, all their habits and customs. By their dress, garb, and every vesture, they disdain and spurn the idea of affiliating or assimilating with the Americans or other “outside barbarians.” They don’t want to become, — at least, the larger part of them don’t want to, — or think of ever becoming, permanent residents; certainly of not becoming, citizens, *unless it be as conquerors and masters*, — holding their home allegiance firmly, and looking down on us with a quiet contempt. *They* feel that there they have a nation and history far superior, far higher, and far beyond all others on the earth.

“The Chinaman conceives he stands on a higher plane, and looks back through the grand vista of ages in one unbroken view; the grand colonnade of emperors, statesmen, scholars, soldiers, reaching back in one glorious sweep to the days of Confucius, now twenty-seven hundred years ago. Beyond that, he

counts, or claims to count, thirteen hundred years more of unbroken history ; and beyond that — but only in the depths of tradition and song — he yet claims a grand ancestry. He points to the fact that China was old and prosperous when Rome and Greece were young ; that she had attained great advancement at the beginning of our Christian era ; that Confucius had taught his philosophy nine hundred years, and Gautama his doctrines five hundred years, before that epoch. Coming down through the long period of fifteen hundred years, he shows, that, when America was 'discovered,' China was in her highest state of civilization, and had a system of internal improvements and other grand works superior to any thing else on the earth. He claims for all of this a superiority physically, mentally, politically, and otherwise, and asks where can be a comparison made to him. He has much in this to be proud of ; and while his claims are excessive, and while our advancement in civilization, arts, sciences, literature, and wealth, under Christian dispensation, are so far beyond his, yet he is blind to them, and keeps his eye steadfast on the age and grandeur and unification of China ; and, with his mind always on the past, he has not believed, or has been indifferent to the fact, that the world moved and improved, and that he was centuries behind the times, and is positively retrograding.

“Let not our philanthropic friends abroad think that the Chinaman is fleeing to America to seek the ægis of our protection. Let them bear in mind that there are no refugees from China except criminals. There are no social, political, or religious migrations,

like the Puritans to New England, the Huguenots to the South, like the Irish patriots, or the Jews from Russia to-day, fleeing for safety, and seeking an asylum and a home. . . . Even to-day she has a navy that puts ours to shame. She lies within thirty days of us, and could, if occasion require it, place on our shores an army, the equal of which modern times have not seen. This is not likely to occur soon, but it may come. The death of a single prominent Chinaman in this country, or a single American in that, or any mishap, may work a complication that would at once put us in arms.

"It is said that in Great Britain there will be put afloat, this year, at least one million of tons register of iron ships and steamers; more probably, twelve hundred thousand tons, or twelve hundred vessels of a thousand tons each. If occasion required, China could buy one-half this fleet; and with her own, and such as she could get together, she could start a thousand vessels on short notice, bringing two thousand men each, and hurl, almost before we knew it, two million people on our coast. This could be readily multiplied, so that five, ten, or even twenty millions could be here in a comparatively short time.

Now, fellow-citizens, let me ask you and our Eastern friends what would be the position of California to-morrow with a Chinese invasion, and *a Chinese settlement in the centre of every city, every town on the coast*, each one compact, unified, and solid against us; with isolated Chinamen throughout the country, — men who could act, and would act, inevitably, for

their people, as scouts, spies, and guides, leading them through our mountain passes into our valleys, villages, and towns; betraying to them all our strongholds, and exposing all our weaknesses; every Chinaman in the country, with his knowledge of its topography and surroundings, being to the invaders worth a hundred of their own men? With the large forces China could land here with modern arms, the land could be swept and devastated, as do myriads of locusts in one unbroken mass sweep over a country, devouring every living thing before them. And do not let our people suppose that the Chinese cannot make soldiers. See them walk our streets and over our hills and mountains, — the long swinging step, and easy regular gait; see them making long marches, and carrying big burdens over hills and valleys, and it is patent to every one that they would make splendid marching militia; and, well broken in and well handled, they are good fighters too.

“We would ask brother Hoar, and those who agree with him, to visit San Francisco, Sacramento, and our interior towns, and ‘do’ the Chinese quarters, with all their filth, stench, and dissipation, and then say if they wish to embrace them as ‘friends and brothers.’

You find the Chinese everywhere, from San Francisco to the higher latitudes of Alaska, where we found twenty at work in one salmon-cannery soldering cans. We saw plenty of them in Astoria, Portland, all along the line of

the railroad for two hundred and sixty-two miles in the Willamette Valley; all the way from Puget Sound to Victoria; in the lead-mines, iron-mines, gold-mines, as chambermen and valets, laundry-men, diggers on the road, workers at the irrigation ditches, waiters on the steamers, porters in streets, many thousand at work on the Northern Pacific Railway, servants in every grade and kind of labor and service everywhere. In Victoria they are very numerous.

We talked with a captain of a steamer whose business it is to bring them from China (there being no restriction against their emigration to the British dominion, they land there, and then many of them make their way overland into the United States); we talked with many men in San Francisco, and along the cities of Puget Sound; and we never found a man who did not say that no part of the Pacific Coast could get along without them: not a man *wished to have the Chinese go*, though many were violently opposed to immigration.

The Chinese are a curious people. They can never assimilate with us either in habits, thoughts, ideas of government, or religion. We took much pains to learn what we could about them. They are cleanly, and will not work where they cannot easily wash all over in

water. They are industrious, economical, law-abiding; never intoxicated or quarrelsome; wonderfully patient and enduring; can carry heavy burdens on their shoulders if suspended on a pole between two of them: but they are by no means strong in general, and in hard work with the shovel or pick can do but about half the work of an Irishman. They are very clannish, and will not work for a man who has treated one of them unjustly. When they leave a house, they are not likely to give a reason; but they are sure to leave a secret mark which will prevent a Chinaman from remaining who may take the vacant place if left for cause. And yet, when one of them becomes maimed beyond recovery, or sick beyond hope of restoration, they leave him alone to die, and go not near him except stealthily to see that he is dead, and then they hire some one (not a Chinese) to bury him. We never once saw an old, or halt, or lame, or blind Chinaman. This inconsistent trait, of leaving the hopelessly ill to die, seemed so strange that we asked many superintendents of railways, who had many Chinamen under their charge, about it; and they all confirmed the statements which we so often heard. They seem to have a horror of touching a dead body. The bones are all that they especially care to have taken to the Celes-

tial Kingdom. They give no explanation of their peculiar prejudices. They are very revengeful, even unto death, towards one of their countrymen who has wronged them. They seem to be afraid of the dead, but not afraid to die. To us they seem to have many strange inconsistencies: they are not *of us*, and they never can be. They are extremely acute, and understand the value of the law (which excludes new immigrants) to those who remain here, and they grade their wages accordingly. They do not drink, but many smoke opium injuriously. They seem a present necessity for this coast, where labor is so difficult to obtain; but no American who has seen them in San Francisco would wish to have an indefinite increase of their numbers. And when we remember that China is now very near, and can spare a hundred million without feeling the loss, the Chinese question is not free of embarrassment.

The odors of the Chinese quarter misled me as to the cleanliness of the Chinamen. At first, I thought them filthy; but further observation convinced me that they are quite as neat as any other people of the same class, and more scrupulously careful in washing themselves daily than laborers of the same grade generally are.

All races of men and animals have an odor

quite distinctive. The African, the Indian, and the Chinaman each differs from the white man and from each other. If dogs could speak, they would say that they can distinguish each human being by the scent. The peculiar smell which comes from the crowded dwellings of the Chinese, so disagreeable to the white man, does not arise from any especial lack of cleanliness.

On our way to the Yosemite, at a village called "Chinese Camp," we saw, walking with her mother, a Chinese girl of eighteen, tall, graceful, and truly beautiful, the daughter of a well-to-do Chinaman: she was born in California, and dressed in the American fashion, and was the only one of the Celestial race whom we met, at all good-looking.

CHAPTER XIV.

SAN FRANCISCO TO ASTORIA.—COLUMBIA RIVER.—
PORTLAND.

ON Monday, July 2, 1883, we left San Francisco in the steamer "Columbia" of the Oregon Railway and Navigation Line, for Portland, Ore. Through the kindness of Gov. Perkins, the bridal chamber, a spacious room, was assigned to us. The attentive Capt. Bowles made us very comfortable at his table. The "Columbia" is a good sea vessel; but the Pacific Ocean was exceedingly rough the entire way, and no one but my father (who is never seasick) was at the captain's table for nearly two days.

Passing the bar at one P.M., we sailed up the far-famed Columbia River, grand in the extreme, though our view was much marred by the forest fires which completely shrouded some of the higher snow-clad ranges. The banks, covered with dark and sombre trees growing to the water's edge, reminded one of the St. John's with the inundated cypress, and also of the Lower Mississippi. We saw quantities of

salmon-nets eighteen hundred to two thousand feet in length, and some eighteen feet deep. Sitting as I do on the bridge, the silence broken by the captain's orders, the vast river spread before us, the timbered shores dark and wild, give a certain lonely feeling of awe in the grandeur and freedom of the scene, which one does not experience on such lovely streams as the Hudson, Rhine, Danube, or St. John's. Salmon here run as high as seventy pounds, although of course this is greatly the exception. They do not rise to a fly, and are caught, throughout Puget Sound and the Willamette River, by nets, with a spear during a run, or by trolling with a spoon early in the morning or late towards evening.

On the 4th we reached Astoria, near the mouth of the great Columbia River. Astoria is on the south bank, and by sea six hundred and thirty-nine miles from San Francisco, and a hundred and twenty miles from Portland, which is on the Willamette River, a south branch of the Columbia; and Portland is twelve miles above where this river enters the Columbia. The Columbia is five miles wide at its mouth; and, a few miles above, it widens to about fifteen miles. There was a destructive fire at Astoria on the morning of the 4th of July, the day of our arrival.

The Columbia River was once called the Oregon. This is the river which Bryant mentions in his immortal poem, "Thanatopsis."

"Or lose thyself in the continuous woods,
Where rolls the Oregon, and hears no sound,
Save his own dashings—yet the dead are there."

Visiting Astoria, which now contains about six thousand people, I was induced to learn something of its history. I had always understood that in some way it derived its name from the eminent merchant, John Jacob Astor, the founder of the Astor family of New York.

It appears, from the account given by Washington Irving, that Astor, with that wonderful forecast with which he was gifted, conceived the idea of establishing a trading-post on the Northern Pacific Ocean for trade with the Indians. In the month of September, 1810, Mr. Astor sent the ship "Tonquin" around Cape Horn on her memorable voyage to the Columbia River, from which she never returned.

On the 12th of April, 1811, a launch from the "Tonquin" was freighted with all things necessary, and, with sixteen men, landed at the bottom of a small bay within Point George on the south bank of the Columbia River; and there they commenced cutting the trees to build their fort and trading-house, and called the

place Astoria, after the projector and supporter of the enterprise.

It may be interesting to some persons who read this book, to glance at a brief sketch of the life of that remarkable man from whom Astoria was named.

John Jacob Astor was born in the little village of Waldorf, near Heidelberg, on the banks of the Rhine. He was brought up in the most simple rural life; but while a mere boy, he made his way to London with a strong presentiment that he would one day arrive at great fortune.

While in London he managed to gain a little money, which he invested in goods which he thought suited to the American market; and in the month of November, 1783, he embarked in a ship bound for Baltimore, and arrived in Hampton Roads in January, 1784. The winter was extremely cold, and the vessel was detained by ice in the Chesapeake Bay for nearly three months. Thus commenced the career of this young man in the New World, a hundred years ago.

On the 5th of June, 1811, the "Tonquin" sailed from the mouth of the river, with twenty-three men on board. They picked up an Indian interpreter, who agreed to accompany them to the north. Capt. Thorn arrived with

his ship at Vancouver's Island in a few days, and anchored in the harbor; Indians came off in their canoes with sea-otter skins to sell. Thorn had been trained in a man-of-war, and was rather arbitrary in his manner, and had a great contempt for the savages. Some difficulty arose about the price of the skins, and he cleared his ship. The next day the Indians returned in great numbers, appearing to be very friendly and desirous to trade: they were admitted to the deck, and in exchanging their furs for merchandise it was observed that nearly all the Indians took knives in exchange. Having finished the barter, the captain ordered the ship cleared. In an instant a signal yell was given, and the treacherous fiends rushed upon their victims. All on deck were butchered. Lewis, the ship's clerk, was stabbed, and fell down the companion-way. Seven sailors had been sent aloft to loosen sail, and saw with horror the terrible carnage. Having no weapons, they let themselves down the outer rigging, in hopes of getting between decks where there were arms: three were instantly killed; four made good their way into the cabin, where they found Lewis still alive. Barricading the cabin-door, and breaking holes through the companion-way, with their muskets they cleared the deck. The Indians took to their canoes; and

the four survivors of the crew discharged the deck-guns, which drove all the savages to the shore. Night came on; and the four men left the ship in a boat, and hoped to escape. Lewis, having received a terrible wound, refused to accompany them: his companions bade him a sad farewell, and moved off with their little boat into the dark. Exhausted by fatigue and watching, they were driven ashore by the wind, seized by the savages, and murdered with all the lingering tortures of savage cruelty.

The next morning some of the canoes came cautiously near the ship, taking with them the Indian interpreter, whom they had not killed. Lewis, who was not yet dead, reached the deck, and made friendly signs inviting them on board. It was long before they would comply. Lewis disappeared from the deck, and finally the Indians boarded in great numbers; and in the midst of their eagerness and wild exultation, the ship blew up, and more than a hundred of these fiends were destroyed by the heroic act of the young ship's clerk.

All these particulars were given by the interpreter, who was blown into the sea, but not killed.

Thus perished Mr. Astor's ship, with every soul on board, to the number of twenty-three; but the town which the "Tonquin" founded still exists.

Mr. Astor had carefully warned the captain, in his instructions, not to allow the savages to come on deck ; but the captain, blinded by his courage, and his contempt for the savage, did not heed the warning.

This was but one of the thousand mishaps and depressing discouragements which Mr. Astor encountered during many weary years of his earlier life. He *earned* his great fortune. It did not come of luck : it was the legitimate result of his great natural ability, energy, sagacity, and the persistent sacrifice of every passion, luxury, or pleasure, which might obstruct his grand design.

Of course I never saw him ; but I derive this estimate of his character from the record which Washington Irving, his intimate friend, has left of him, confirmed by the portrait painted by Stuart.

At midnight on the 4th of July we reached Portland, and landed on the 5th. Large ships come up to Portland. It is a very prosperous city of about forty thousand inhabitants, and increases rapidly. The stores and business houses are large and well built, and many of the private residences are very fine. It is believed that there are more rich men in Portland, for its size, than in any other city in America ; but there is not a healthy or comfortable hotel

in the place. But the citizens are very hospitable, and Mr. Paul Schulze and his wife made us feel at home as guests in their house. Mr. Schulze is the energetic and enterprising head of the land department of the Great Northern Pacific road, which road will surely make Portland quite the largest city on the Northern Pacific. It lies on the west bank of the Willamette River, which drains that fertile valley of Oregon through which a railroad now runs from Portland. Large ships lie at the docks. It is useless to argue that Astoria, Seattle, or some other place, will be its future rival: it is too late for that; too much capital and enterprise are there concentrated to be diverted; and besides, considering all things, there is no more natural place for a great city anywhere in that region.

We found the Arlington Club a delightful place, with excellent fare and agreeable company. We saw many of the business-men of Portland, besides Judge Deady, Senator Dolph, Congressman George, Mr. Koehler, Mr. McLean, Mr. Failing, and many others. We met several very interesting men at a pleasant dinner given by Mr. Richard Koehler to my father.

We noticed the same peculiarity at Portland as at San Francisco; namely, a careful and effectual desire to conceal the names of the streets. On scarce a street could a name be

found. In Portland I wanted to find Washington Street: meeting a gentleman, I asked him where it was, and he said he didn't know; I had better ask a policeman. I asked him where I could find a policeman: he looked about, and, smiling, said he "guessed they didn't have any." I went along as my instincts directed, and met a Chinaman who had on American clothes, and looked as though he could talk American. I asked him if he could direct me to Washington Street. He said, "*Ching chang see*;" and I went on. Soon I met another man, and put to him the same question: he looked dismal, put his finger in his ear, shook his head and his hand, opened his mouth, and looked like an idiot, and said nothing. I asked no more questions; and, after searching about a while, I found the street: a long, wide street it is.

There had been no rain in Portland for nearly two months: every thing was dried up, the dust deep; and the surrounding forests were on fire, so that the smoke obscured our view, and Mount Hood, the pride of Portland, could not be seen. The days were hot, the nights cool.

The sewerage of the city is bad, the place malarious, and it will become more so as the population increases. But they are making money so fast that they have no time to think

about health ; nor will they, until many have died, after a rapid increase of numbers, and the consequent generation of disease where drainage is neglected.

The whole country is praying for rain to quench the terrible forest-fires. I remember one occasion, when deer-hunting near the Everglades of Florida, not far from Lake Okeechobee: our team of mules, "Jeff Davis" and "Abraham Lincoln," drawing our provisions and corn for the mustangs, cursed and sworn at by the darky driver, slowly labored along under their load ; the stag-hounds, with tongues lolling out of their mouths, trotted by our side ; when suddenly the cry of "Fire !" was given, and we found that the very fire that we ourselves had lighted that morning to drive the deer south (the wind having changed) was on us ; and we had just time to huddle together the mules and horses, while we, for an hour, burned in opposition, and with green branches fought the flames. Then, worn out, we lay down, the old hounds nestling round the warm glowing embers of the camp-fire. How well I remember keeping awake, looking up at the dark canopy studded with stars, until all my party fell asleep, and watching the flames running up the pines, flitting over the branches, crackling, and spluttering, the limbs snapping

and creaking, until, charred and worn out, like Laocoön and his sons when overcome by the fatal serpents, writhing they fell. The next morning after breaking camp, and driving over the burning country, we found huge land tortoises burned in their shells, in vain having attempted to escape.

But to return : After dining with Mr. Schulze at the Arlington Club, and playing pool with Mr. Browne, a Harvard man, I reached my host's house in time for our night's ride. Mr. Schulze rode his high-stepping thoroughbred, while I mounted a fast-trotting gray of his ; and off we started in the night, about nine P.M., with the intention of reaching his little *châlet*, some three miles off, situated on a hill, where we would pass the night, returning to the valley early next morning for breakfast. It was quite a treat, being on an English saddle, after using the Mexican kind so much ; and I certainly think that the English, although perhaps not quite so comfortable, are much safer for jumping.

Slowly we wound our way up the hill, until meeting Tom, Mr. Schulze's Irish servant, who had been sent on ahead with an extra mattress, we were informed that the forest fires were on both sides of the road, making it dangerous, and that he had just run the gantlet through burning, falling limbs. Deploying, therefore, to

the right, we took a more circuitous route ; and, after a couple of hours' riding, we reached the little frame house, neatly made of yellow pine, perched high up on the mountain, having a splendid view of alpine scenery during fair weather. To - night, however, all the woods blazed on nearly every side, raging like a molten sea ; resembling more the Chicago fire than any thing I can recall. No siege of Paris, or burning of the Tuileries Palace by petroleum, could equal this wild devastation of the flames.

Am I forgetting what occurred on this eventful night at Schulze's cottage ? No, never ! Am I oblivious to dear Schnapps, my host's dog ? What ingratitude ! Picture him, bow-legged, protruding under-jaw, twelve years of age, no teeth. No need to name the breed : the bull is stamped on every feature, — yellow-eyed, white-coated, with his off eye tinged with soot. Where the bull began, and the dog ended, I cannot tell. I don't know what his mother was, but *he* was bull. A wheezy kind of grunt first attracted my attention. What mattered it ? Poor fellow, he has a cold. What more natural ? He had wriggled behind our horses all the way up the hill. In the garden he changed his upper notes, becoming more guttural ; which tempted mine host to hazard the question of the Chinaman in charge, if there

were any hogs on the place. Finally we concluded, that, considering the wind's course, we need have no fear as to the fire blocking us from our road back the next morning.

Now arose the question : Shall Schnapps remain out in the cold night air, or sleep inside ?

"Poor chap," said I : "let's have him in."

"Yes," said Schulze : "I'll rig up a bed in my room."

Suiting the act to the word, he threw a piece of old carpet on the floor. But no : Schnapps trotted across to my room, and lay deceptively quiet on the rug at my bedside.

Out went the light, and I lay facing the partially open window ; the moon stealing in, with the long line of flaring pines gleaming like a furnace in the darkness. My fancy began to wander ; when suddenly something like distant thunder fell upon my dozing senses, like what Rip Van Winkle heard when the Catskill goblins played at ninepins with dead men's skulls. Starting up, I saw Schnapps turning in his sleep, every movement of his body clearly defined in the moonbeams ; a bronchitis-like clearing of the throat, with an upheaving of his hind quarters. Then he slipped around the bed, eyed me with his malarious yellow eyes, gazed at the moon, tried various acrobatic stretching performances, arched his back, fell over my

boots, and inadvertently overturned the water-jug, the contents of which he proceeded to lap up with a gurgling sound, like water escaping through the vent of a wash-basin, and then proceeded to calm himself to rest, which meant circling around several times in various parts of the room, each revolution being followed by a flop, like Mark Twain's jumping-frog. My attempts to soothe were followed by threats of his bony appendage, sounding like the pulsations of a donkey-engine.

Again I began to doze, and again night became hideous. I got mad, seized the candle, and hurled it so successfully as to just strike the tip of his tail. That settled it: he just chewed the candle as if it had been spruce gum, and then lay down.

Presently I felt an upheaval of my bed, and, starting up, found the beast raising up his back under my low-lying mattress. I could stand it no longer. Seizing the brute by the scruff of the neck, I hauled him over the matting, his fore-paws spread out in resistance. Catching the straw at every scrape, and half pulling, half lifting, I got him into my friend's room, — who had imagined all the time that he was hearing my gambols, and not the dog's, who had on former occasions conducted himself properly. Out into the night went Schnapps;

and towards two o'clock we again turned in, and soon fell asleep, lulled to rest by the distant breathing of our cunning foe.

All went well, until, towards three, I started up, and seized my five-shooter, hearing one of the most unearthly yells, that even a madhouse could not equal. Looking towards the window, I beheld in the moonlight Schnapps standing on his hind-legs, his head thrust through the open fissure of the window, caught like a mouse in a trap. Extricating him, I shut that window, and spent what remained of the night dreaming of wheezing, asthmatic curs sitting on my bed-post, and regarding me with bilious eyes.

6th. — Returning down the mountain, we took a short canter up the other road, and witnessed the result of last night's destruction. Huge trees lay across the path; and pines, still burning, ominously burst and creaked occasionally, as if to give warning of their imminent downfall. Spent the remaining portion of the day in riding round the town.

CHAPTER XV.

THE WILLAMETTE VALLEY.—OREGON AND CALIFORNIA RAILROAD.

On the 7th of July we left Portland by the Oregon and California Railroad (which will soon connect with San Francisco), to go up the Willamette Valley as far as Glendale, the present terminus of the road, two hundred and sixty-two miles from Portland. Capt. Mitchell, chief clerk of the Northern Pacific Land Department, escorted us, and was very agreeable and useful.

We went in the president's private car, formerly owned by the well-known Ben Halliday, the pioneer railroad-king. The car afforded every facility and accommodation for sleeping and dining, with lounges and sofas for the daytime. Two boxes of Roederer and good claret were on board, so that we all lived in luxury.

For a long distance the valley is level and productive. The road passes through Salem the capital of Oregon, and the town is pleasantly situated in a fertile region: it is fifty-four miles south from Portland.

Beyond Springfield, some one hundred and thirty miles from Portland, the mountain region begins, and the road is very crooked. At Glendale a tunnel of about three thousand feet was being made through the mountains, and the process of boring with diamond drills and compressed air we saw in perfection.

It was curious to see here, in the lone mountain woods, so many new houses, so new that the sawdust was still clinging to the boards. Small they were indeed, but they had great names and many occupants. One had a sign in large black letters, "Palace Hotel;" another, "California House;" and several more, high-sounding names. The occupants were laborers on the railroad. There were white men, Chinese, squaws, and one white woman with a baby in her lap.

Mr. Burick, a Scotchman, a superintendent of the road, joined us. He had long years of experience with Chinese laborers, and he related to us many particulars of the way the Chinese leave their sick to die. So strange and unnatural did it seem, that, meeting Gov. Chadwick at dinner that evening, my father repeated Mr. Burick's statements; and the governor confirmed them. Subsequently we heard similar statements respecting the Chinese, from a dozen men at least.

Since returning to New York, I have talked with three gentlemen who lived in China: two of them believed what was told us about the neglect of the Chinese towards the hopelessly sick or maimed, but one doubted. Another added, that if you would place the same number of the same class of citizens from this country, in China, and let them be compelled to suffer the same privations, they would be no more considerate of each other.

At a funeral, the corpse is borne on a litter, exposed. Several men sprinkle little papers along the road, as a trail for the departed to return home. At the grave, a roast-pig is placed crossways, with other eatables, and lighted pieces of punk to chase away the evil spirit; and hired mourners stand near, uttering nasal cries of supposed anguish. It is said that sneak-thieves occasionally after the ceremony go to the grave, and steal the roast-pig.

At Salem, the capital of Oregon, we learned that seventeen convicts had escaped from the city jail only two nights previous: four were killed, and six captured, the remaining seven being still at large. As they had taken refuge among the mountain fastnesses, were well armed, and possessed plenty of food, their seizure was despaired of.

On this trip we were told, that, in the early

days of Oregon, Congress passed a law to favor the more rapid settlement of the Territory, giving every settler three hundred and twenty acres of land, and every settler with a wife six hundred and forty acres. Women were very scarce : and to get the double portion many men married Indian women, and three men married one squaw ; they each kept the land, but neither kept the squaw.

All along the valley we found the smoke from forest-fires, which had produced and were producing great destruction.

Having returned to Portland, we saw Judge Deady, United-States district judge. He was one of the original men of 1849, but differed from most in foreseeing the ruin which the gold-fever would produce ; for which reason he settled in Oregon, rather than California, his earliest convictions being that gold discovered in a region brought more evil than good, and that the same labor devoted to agricultural pursuits would produce far happier results. This view has been corroborated by many persons during our stay.

We dined with Mr. and Mrs. Koehler, where we spent a pleasant evening ; Mr. Dolph, senator from Oregon, being among the guests.

CHAPTER XVI.

PASSING THROUGH PUGET SOUND TO VICTORIA.—
VICTORIA.—BRITISH COLUMBIA.—THE TREATY
SURRENDERING THE LINE OF $54^{\circ} 40'$.—BIG CLAMS.
—VANCOUVER'S ISLAND.

WE took a steamer in the early morning of the 13th of July, went down the Willamette twelve miles to the Columbia River, then down the Columbia as far as Kalama, where we took the rail for Tacoma on Puget Sound. Tacoma is on a very high sand-bluff. The dock is at its base, where there is a good hotel. Here we took the steamer "Northern Pacific" for Victoria.

The country from Kalama to Tacoma is mostly a gravel soil, and barren along the road.

Mount Tacoma, some sixty miles to our right, a high and lone snow mountain, was often in sight, and is very splendid.

From Portland to Kalama (by boat) is thirty-eight miles.

From Kalama to Tacoma (by rail) is one hundred and five miles.

From Tacoma to Victoria (by boat) is one hundred and seventeen miles.

We now sailed through Puget Sound and the Straits of Fuca, to Victoria on Vancouver's Island—which ought to belong to the United States, and which, if we had stuck to our claim of $54^{\circ} 40'$, would not now have left Alaska without its touching the United States at any point, and so situated that we cannot reach it without the permission of England, except through a long rough voyage over the Pacific Ocean (see map).

Puget Sound is formed by the waters of the Pacific Ocean, which, running through the Straits of Fuca, extend some ninety-eight miles in deep, narrow inlets, down into Washington Territory.

Commodore Wilkes, on his exploring expedition, went into the sound with his two ships. He says of the sound, in his history of the expedition:—

"Nothing can exceed the beauty of these waters, and their safety. Not a shoal exists within the Straits of Juan de Fuca, Admiralty Inlet, Puget Sound, or Hood's Canal, that can in any way interrupt their navigation by a seventy-four-gun ship. I venture nothing in saying that there is no country in the world possessing waters equal to these."

Gov. Stevens, who was assigned by the gov-

ernment to explore Puget Sound, thus describes this marvellous body of water : —

" All the water-channels are comparatively narrow and long. They have all more or less bold shores, and are throughout very deep and abrupt, so much so that in many places *a ship's side will strike the shore before the keel will touch the ground.* Even in the interior and most hidden parts, depths of fifty or one hundred fathoms occur as broad as De Fuca Strait itself. Nothing can exceed the beauty and safety of these waters for navigation. Not a shoal exists within them ; not a hidden rock ; *no sudden overfalls of the water or the air ;* no such strong flaws of the wind as in other narrow waters, for instance, as in those of Magellan's Strait. And there are in this region so many excellent and most secure ports, that the commercial marine of the Pacific Ocean may be here easily accommodated."

Through Puget Sound, for a hundred miles or more, we have lake scenery which cannot be surpassed in the world. The waters are deep, clear, still, and beautiful. Forest-trees of evergreen are on the shores, and no marshy banks to mar the scene ; and the high Olympian Mountains in the west loom high, covered with snow.

The first thing I did on arrival at Tacoma was to inquire for clams : they had none, to my great disappointment. Gen. McCook had told us, when at Salt Lake, of the enormous clams at Puget Sound. On the way I had said, —

"We shall now see some clams weighing fifteen pounds."

My father had replied, "My boy, I will give you five dollars each for every clam which you will show me weighing fifteen pounds."

"Don't you credit Gen. McCook?" said I.

"Yes: I believe the general has eaten clams of that size at Puget Sound, because he says so; but I do not believe there are any more such. It takes a big baby to weigh fifteen pounds."

I *did* believe; and since — somehow or other not easy to explain — my pocket-money had all slipped away at Portland, I was actually "strapped," and wanted to replenish; and I relied upon the clams. But I was told at Tacoma that there were no such clams unless at Olympia, and that the big clams were never found except at low tide in June. We were not going to Olympia, and my financial prospects grew sickly. I persisted, however; and, on reaching Port Townsend, I found a man from Olympia, and inquired about the "big clams." He said that he had often seen them; that they grew in deep water; that they were very fat, and their meat protruded far out of the shell, and was very delicate. My father asked how large they were, and the man began to give their size by an expansion of his hands. "But

how much would they weigh?" my father repeated. After mature deliberation, the man said, "I really think that I have seen them weigh — *four pounds!*" evidently doubting whether we would believe him.

But at Departure Bay we met a man of more exalted mind, or of more faith in confiding natures, who said that he had seen clams in Puget Sound which would weigh *twenty-two pounds*. I could not find the clams, and my finances remained low.

Vancouver's Island lies along the coast of British Columbia; is separated from the mainland by Queen Charlotte Sound and the Straits of Fuca. It is situate between $48^{\circ} 20'$ and $50^{\circ} 55'$ north latitude, and $123^{\circ} 10'$ and $128^{\circ} 20'$ west longitude. It is three hundred miles long, with an area of eighteen thousand square miles, — larger than the States of Massachusetts, Rhode Island, Connecticut, and Delaware combined.

The best of iron-ores as well as coal are found in abundance; gold, silver, copper, and lead are also found in increasing quantities. The crops are chiefly hay, wheat, barley, oats, and pease; but turnips of all kinds, and potatoes of unsurpassed excellence, as well as many fruits, grow abundantly. The land is well stocked with game, and the surrounding waters are filled

with almost every kind of fish. The quantity of arable land is comparatively small ; but the forests are extensive, and furnish most valuable kinds of wood. The Douglas pines and the immense cedars are exceedingly valuable.

The scenery is varied and beautiful, and the summer climate is charming ; the winter is not cold, — 84° Fah. being the maximum, and 22° the minimum, for the year.

Victoria, the capital, is delightfully situated, and commands the sea. The roads are excellent, and the drives along the shore and around the lakes are unsurpassed. It is quite a summer resort, on account of its salubrious air ; and here British ships of war find a pleasant station.

We were obliged to remain here some days, waiting the arrival of the "Eureka" from San Francisco, a steamer of the Oregon Railway and Navigation Line, which was to take us to Alaska. Gov. Cornwall, the governor of British Columbia, drove us about the country ; and we dined at the Government House, where we met Mrs. Cornwall, her sister Miss Pemberton, Chief Justice Sir Matthew Bigbie, and others. Admiral Lyon and Capt. Acheson of the war steamer "Swift-sure" called upon us ; and we were entertained at a ball on the ship, where we saw many very agreeable people.

While dining at the Government House, the chief justice called my father's attention to the difficulty now existing, and likely to increase, about transferring prisoners through British waters from Alaska and other places, and suggested that we needed a treaty. My father suggested, that an easy way out of the difficulty was to transfer Vancouver's Island and the adjacent waters to the United States; but the chief justice thought it would be better to annex Alaska to British Columbia.

In this prettily-laid-out city of over seven thousand inhabitants, with its well-kept roads, we felt as if living in England; and I was the more forcibly struck with the idea of being in a foreign city, on finding, this afternoon, that American stamps were useless for postage.

The name of Sir James Douglas is quite one of the revered memories of the place; and a monument stands near the Government Buildings, as a landmark, recalling one of Victoria's earliest governors from 1851-1864, who died in 1877, honored by the people whom in earlier days he used to defend against the encroachments of hostile Indians.

The "Swift-sure" is the admiral-ship of the fleet, carries five hundred and fifteen men and sixty officers.

The antics of a pet black bear-cub, a few weeks

old, gave us some amusement, as we made him stand up on his hind-legs for cherries. His teeth were already sharp enough to pierce my glove, and in this practical way I had a foretaste of the real thing. It was ludicrous to watch him climb like a cat over the ship, and go down the companion-way hind-quarters first.

This princely possession we threw away by the treaty of June 15, 1846, and allowed England to take it; to her invaluable, and, since we have acquired Alaska, to us a necessity. Through our blunder in that stupid treaty, we are severed from Alaska, and Great Britain has possession of fine harbors on the Pacific, and will soon send her railway-cars to the great ocean, and dispute with us the trade of China and Japan, and the transcontinental traffic of North America.

During the administration of James K. Polk of Tennessee, the question of the north-western boundary between British Columbia and the United States arose. Congressional records prove that we claimed to go to the Russian Possessions, in north latitude $54^{\circ} 40'$; and it was shown by maps, in the archives of Holland, that our claim was well founded. During the public discussion about this boundary, the debates in Congress and the columns of the leading journals of the country defiantly pro-

claimed that we would insist on that boundary, or go to war. "Fifty-four forty, or fight," rang throughout the country.

But James K. Polk of Tennessee was president, and James Buchanan was secretary of state. The South was in the ascendant. The slavery question was already agitated; and the dominant South did not wish to extend our free territory, but, on the contrary, were beginning to claim that much of it which was then free should be subjected to slavery. This popular cry of "Fifty-four forty, or fight," was hushed.

James Buchanan, secretary of state, and Richard Pakenham the British minister at Washington, concluded a treaty in June, 1846, which ought to have made the minister a duke, and placed the secretary in disgrace. The advantage obtained for England by this treaty is incalculable, and was largely foreseen by British statesmen at the time; and the imbecility of it on our part is just beginning to be seen by our countrymen. Mr. Seward felt it keenly when he secured Alaska for the United States.

Instead of insisting upon $54^{\circ} 40'$ as our northern Pacific line, to which we had an undoubted right, this treaty provides that we take the humiliation of even bending our line of 49° (running between the United States and Canada) down through the channel, and out

through the Straits of Fuca, in order to give England the whole of Vancouver's Island, — priceless in value to England, and proportionally detrimental to American interests, as time is only too fast demonstrating.

We had a visit from our worthy consul, Mr. Francis, who is largely respected in Victoria; and we were pleasantly entertained by the consul and Mrs. Francis. They gave us some excellent port direct from Portugal. Mrs. Francis brought down, with pardonable womanly pride, an old dressing-gown which Secretary Seward, when on a visit, had left behind, and written them to keep.

Chinamen are very numerous in Victoria, as elsewhere on the Pacific Coast. At the Driard House, where we staid, Chinamen were the chambermaids, the laundresses, the porters, etc. We learned their character from many people; and the statements were uniform, — that they are industrious, patient, and enduring; not able to do nearly so much hard work as a white man; excellent house-servants; never drink, but smoke opium; are cunning, secretive, and treacherous at times; will not steal silver or large articles, but will pilfer many little things; will file the coin, and melt the filings; have strange whims, and will without any imaginable reason leave the house, even while you have a

party to dinner, and will leave a secret mark in the house which every other Chinaman will understand, but never explain; attentive and faithful enough to each other generally, but utterly neglectful to any one whose illness or accident seemed likely to prove fatal,—thus confirming all that we had heard in Oregon of this strange people, who never look happy nor very unhappy.

At Nanimo, the port of entry at Vancouver's Island, we met Mr. Johnson, who is largely engaged in the manufacture of iron in Washington Territory. He complained that the new tariff tended to destroy a great industry of the North-west; that it imposed a duty of seventy-five cents a ton upon the magnetic ores mined in Vancouver's, which were necessary to mingle with the ores of Washington Territory, in order to produce a good iron; and he thought this an illustration of the mischief which "a protective tariff" may sometimes produce. He mentioned an accidental discovery of a valuable mass of bog-ore, which he made in wading into a river to unloose a fish-hook that had caught in the roots: in going in with bare feet, he stepped upon something which felt unlike any thing of which he had knowledge, and it turned out to be a piece of an excellent and extremely valuable ore.

On our journey we found it necessary to sail to the east of Vancouver's Island, through British waters, towards Cape Fox, the first land we make in Alaska.

Alaska commences at $54^{\circ} 40'$, on the north shore of Dixon Inlet.

If, in the boundary settlement above mentioned, we had secured the line of $54^{\circ} 40'$, the purchase of Alaska from Russia, made in 1867, would have given us uninterrupted dominion on the Pacific Ocean, from the lower line of California to the Arctic Ocean; and neither Great Britain nor any other power save the United States could have a seaport on the Pacific north of South California. The American statesmen who believed in the justice of our claim to $54^{\circ} 40'$, and insisted upon our maintenance of it, were wise; and the English statesmen who foresaw the effect of yielding to our demand were equally sagacious, and they excelled us in diplomacy.

The boundary-line between British Columbia and the United States, and also between British Columbia and the Territory of Alaska, appears on the accompanying map.

CHAPTER XVII.

FROM VICTORIA TO ALASKA, STEAMER "EUREKA."

ON the 19th of July the steamer arrived which was to take us to Alaska, — the ill-fated "Eureka;" being so called from the fact of her having been wrecked last voyage while passing through Peril Straits, latitude $57^{\circ} 24'$, longitude $135^{\circ} 29'$. Her tonnage is 454; foremast and mizzen rakish build, and modelled like a yacht, speed eleven and a half knots, flush deck, keel two and a half feet, lies five feet by her stern, length one hundred and eighty-six feet nine inches, brigantine rigged.

With an exceptionally favorable trip, a good wind astern, every hope of soon having her bow pointed homeward, the ship "Eureka," the 26th of May, 1883, at 11.50 A.M., while passing through this dangerous channel of struggling waters, struck an unknown rock: she speedily listed on her port side, and rapidly began to fill.

The captain was on the bridge at the moment of striking: all hands went to their posts, and every order was obeyed with despatch. The

passengers soon came on deck, having encircled themselves with life-preservers ; and the fat cook came rushing out of the companion stairs. Every eye was on Capt. Hunter.

The water, which had to pass through the coal ballast, at first filtered through slowly, and then gurgled in with a rush. Word came from the engine-room, that the coal-heavers had been driven from their posts. Three minutes later engineers were working up to their waists. Twelve minutes passed by : she began to settle at the bow. Every possible degree of speed was given her. The captain strained his eyes in vain for a spot to beach her. Both sides, narrow and treacherous, frowned upon him, repelling all search for aid. The cry came, "Cove ahead, sir!" and just as the swelling water reached under the arms of the second engineer, she was run aground.

All possible provisions were landed, boats lowered from the davits, papers and documents saved, every possible thing of most value hurried from the wrecked vessel.

Beached at low tide, the water slowly rose, until, inch by inch, the ship slowly vanished ; and when the sun set, and the cool night air came rushing through the gorges, only the top of her bowsprit and the tip of her foremast were visible.

Here alone, in this far north latitude of Alaska, stranded on an isolated shore, these few men began their weary sojourn, which lasted forty-two days before the necessary divers arrived from San Francisco.

The United-States man-of-war "Adams," under Capt. Merriman, was eighty miles off. Several of the crew took a small boat and a despatch from Capt. Hunter to the "Adams," which Commander Merriman conveyed to San Francisco. Four days later the little steam-tug arrived from Juneau, some eighty-five miles distant, and took off twenty-three miners and traders to their northern destinations.

For these many weeks Capt. Hunter and his crew camped on this wild shore. Indians came and pitched their tents; wild beasts prowled round the fires; and during the twilight, eagles and crows wheeled above them as if they expected, at no distant time, a goodly feast. All worked hard. The wreck was visited frequently, cables fastened to the trees, and every expedient used to prevent her drifting off, or grinding herself to pieces. So through the long nightless days they waited, building themselves rough huts, and telling their same old jokes and tales around the fire, fishing for halibut and cod, and occasionally bringing down an eagle, until the divers arrived with all necessities and a good supply of food.

The damage was found to be six feet on her stern, and forty feet off her keel, from which one can judge the immense force of the collision. The usual charge for divers is some forty dollars an hour, but the whole labor had been contracted for at four thousand dollars. The work needed two divers, and lasted just one month.

The life of an experienced diver, even with all precaution, is full of danger; and when the wreck or treasure to be recovered is a great distance under the sea, should the air-pump be unworked for even a moment, the diver's life would be extinguished like the flame of a candle.

After being raised, the "Eureka" was taken to San Francisco, and at the end of nine days her damages were repaired, and by using all haste connection was made; and to-night, the 19th of July, 1883, we are sitting in her little cabin, a dim oil-lamp lighting up the face of the purser as he slowly tells us the preceding narrative of our ship's mishap.

Whether or not the accident had dissuaded tourists from taking this voyage to Northern Alaska, I am unable to say. Be that as it may, we had the choice of any or all the staterooms. But as the smell of the new paint met us on all sides, the fear of sickness, combined with the

solitary feeling that we should be afloat all by ourselves for several weeks, without change or intercourse with the civilized world, was not agreeable; and had it not been for the hope of viewing the inland seas, aurora borealis, vast glaciers, — grander and larger than any in Norway or Switzerland, — the sun at night, and majestic mountains rising precipitately from the water's edge, we might have been dissuaded from starting. However, casting off the cables, we steamed away from Victoria toward nightfall, and left this pleasant little city in our wake.

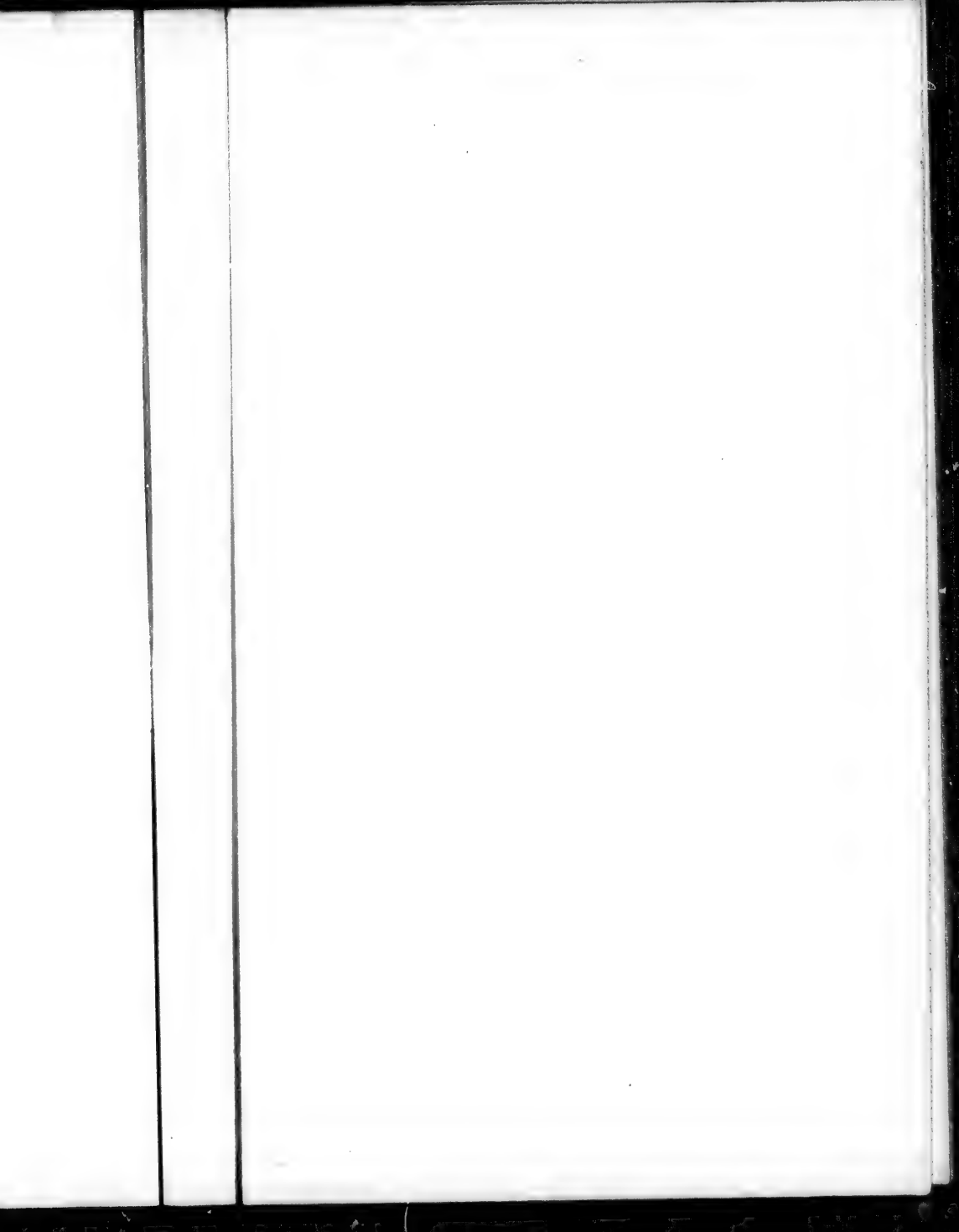
Before going to sleep, I paced the deck with the chief officer, Mr. Burr. Noticing that he walked lame, I found that only a few days before he had been on the "Mississippi," which burned to the water's edge at Seattle on Puget Sound. Being chief officer, and having to give orders, he remained on deck until the last moment, shivering in a shirt and pair of stockings; not one of the crowd on the wharf offering the use of a coat. Just before leaving, he remembered that a sick sailor lay asleep; and while carrying him out of the forecastle a piece of timber fell, and struck him on the ankle, and so disabled him.

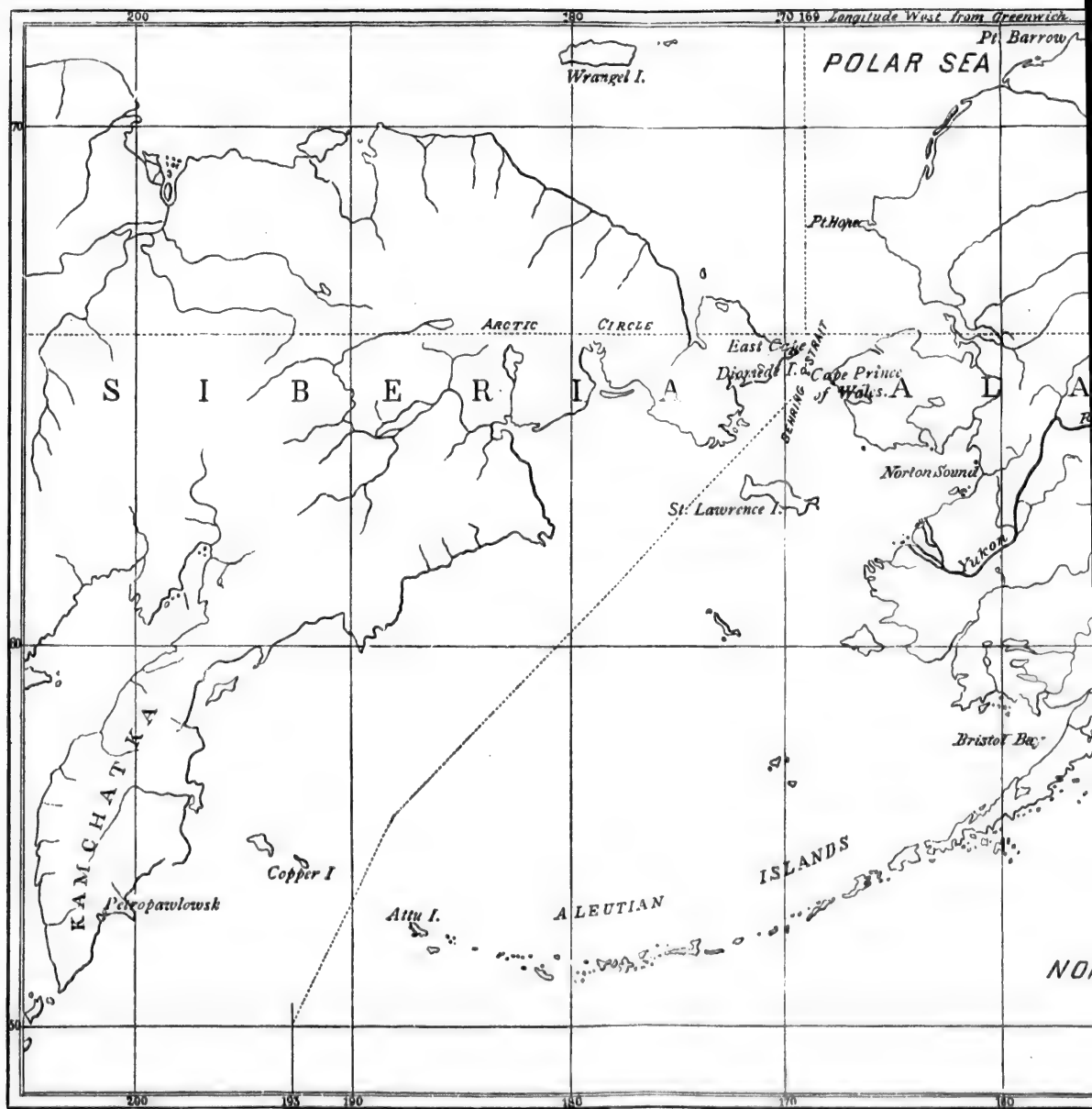
20th. — This morning we reached Departure Bay, the coal-station, and took on board one hundred and fifty tons.

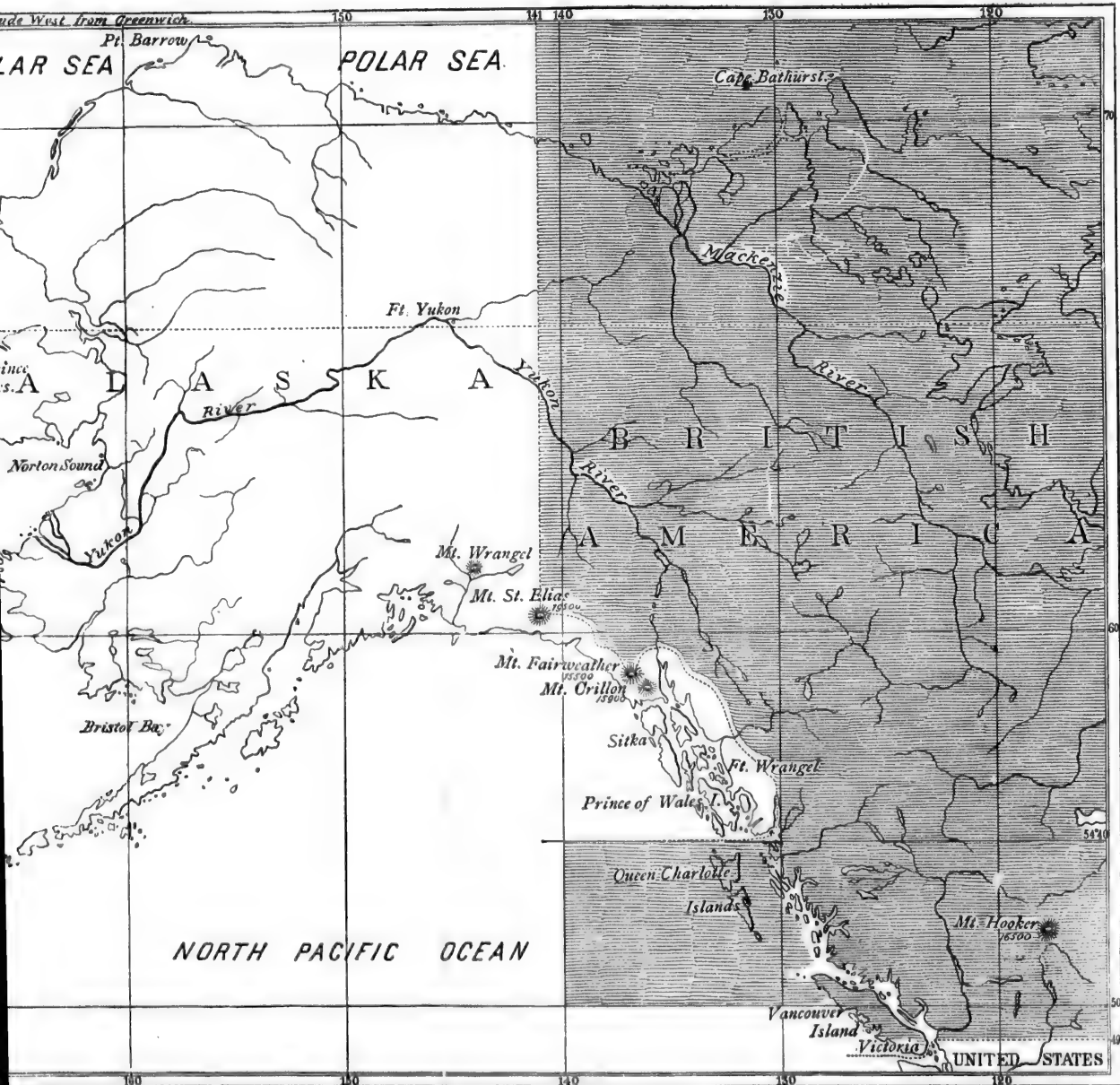
The coal-mines are very extensive. In mining the coal, in many places, they are obliged to dig through sulphur formations, which so injure the eyes that the men cannot work longer than one or two hours a day. But they made the singular discovery that the Chinese miners are not affected at all by the sulphur fumes, — no more singular, however, than is the fact that the poison-oak of California and the poison-ivy of the North are harmless to some, and exceedingly poisonous to others. The subtle differences in human constitutions, which render some liable to diseases from influences which do not affect others, and to be harmed by fruits and other food which may benefit many, is a mystery which no science has yet solved.

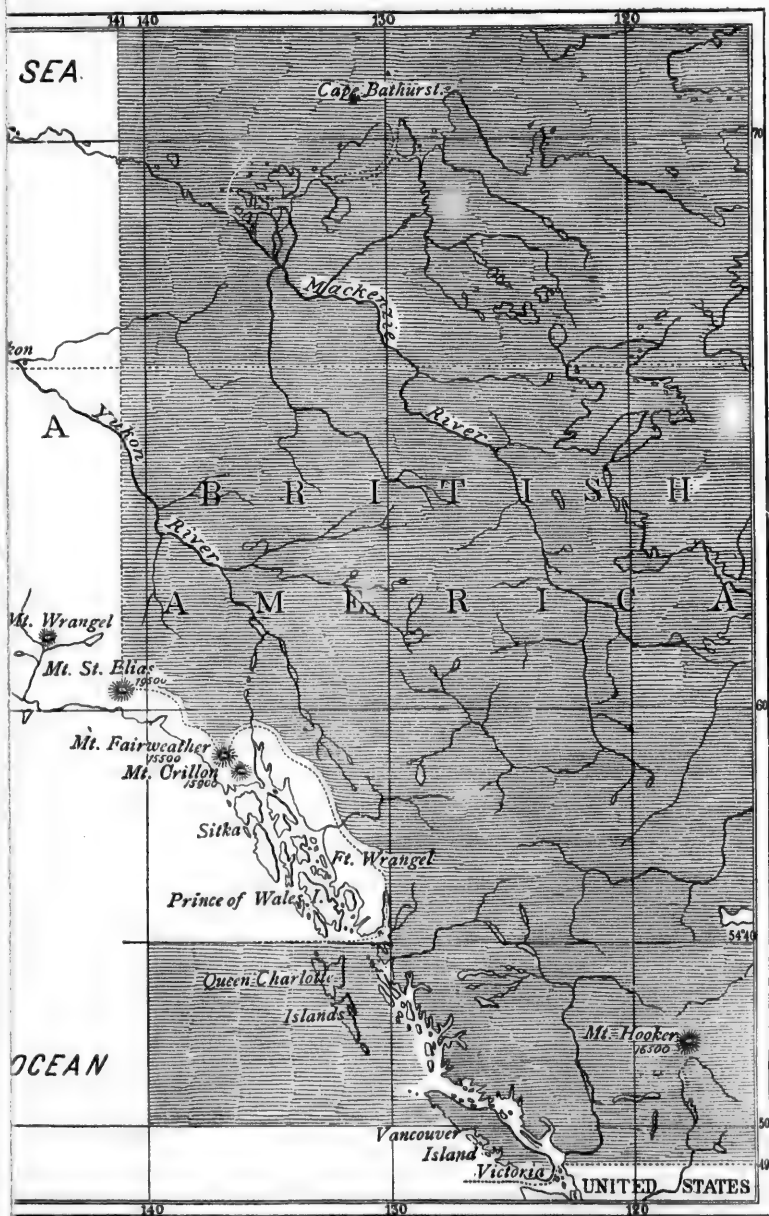
ALASKA

WITH MAPS SHOWING HOW THE UNITED STATES ARE
SEVERED FROM ALASKA BY BRITISH
COLUMBIA.









CHAPTER XVIII.

ALASKA. — INDIANS. — SCENERY. — LYNCH-LAW. — RESOURCES. — CLIMATE, ETC.

WE are now in latitude 49° ; expect to reach Pyramid Harbor in Northern Alaska, latitude $59^{\circ} 12'$, longitude $135^{\circ} 20'$, which, compared with New York, will give some idea of our northern course.

The Indians, in loading or unloading here (the whites being scarce), require just as much pay as white men, while the Chinamen receive less; the Indians being found much better workers from the fact of their greater strength.

We find the climate fine, sun hot, appetites good, table excellent. Expect soon to be able to read or write during the greater part of the so-called night.

The chief officer, concerning whom I have lately spoken, this morning was seized with the painter's colic, arising from the ship having been lately painted: he was seized with convulsions, and it required three men to hold him down. Later he began to recover, and we hope now he is out of danger.

We took a little paddle-wheel a few feet long, called the "*Hyack*" (the Indian term for "quick"), and found that she belied her name, making the distance of four miles to the town of Nanaimo in an hour and a half. Passed numerous Indian canoes, pulled by their dusky owners, the bows ornamented with red fresco-work, and carved with strange figures of birds and animals; the prow being sometimes protected with skins firmly fastened.

The Indians here, as at Victoria, troll for salmon with a spoon, also using the spear. No one here has ever heard of their rising to a fly.

Our captain, a Swede, we found throughout the trip an excellent man and most careful officer. His companions in loneliness, while absent from his wife, were two dogs,—one a small brown retriever, the other a little liver-colored water-spaniel pup. They both now are lying near me, watching the coal sliding into the hold; and the pup feebly wags the short stump of a tail, the last portion of which he has just lost. Telling the captain how most spaniels have their tails docked, he, without waiting for an explanation as to the *modus operandi*, before I realized the situation, had a chisel on the tail, and the ship's carpenter was driving it home. Half of a tail went over the deck one way, and a yelling pup the other. Calling him down, the captain,

having no caustic, wound the tail in a tarred rag. Puppy soon recovered, and when working some day in rough brush after birds will thank me for saving him many an hour's agony from a future sore tail, arising from beating it against the undergrowth.

We now coasted back along Vancouver's Island, steering a southerly course, heading toward Port Townsend on Puget Sound, in order to take on board an Alaska pilot.

July 21. — At Port Townsend, the purser took some lemons on board, which are always so greatly prized in northern latitudes.

22d. — The steamship "Mexico" arrived in the night, and gave us our pilot, Capt. Hicks by name, who, like most of the old-school pilots, navigated throughout our course by certain natural landmarks, in preference to keeping a log and steering by minutes of distance; the former method, in case of fog, being totally useless.

Skirting along Vancouver's Island, the sun glancing on the water, with occasionally a canoe shooting forth from the shore, we began our thousand-mile course through this wonderful passage made up of inlets, bays, sounds, channels, and fiords, filled with innumerable islands, where the waters are very narrow, with high mountains on either side, where a vessel may

sail some twelve hundred miles over deep seas, and no passenger suffer in the least from sea-sickness.

Considering that the distance, even in a direct line, from Puget Sound to the head of Lynn Canal, is some seven hundred and eighty miles, where can such another sheet of water be found?

Through this north-west passage for days we sailed, through visions of unbroken grandeur; the scene enhanced in beauty by the boldness of the shores, the precipitous and abrupt rise of the snow mountains from the water's edge, and the narrowness of the channels, some being not more than two thousand feet, the lead even then striking no bottom at fifteen fathoms. This fairy-land of moving extravaganzas of scenery was an amalgamation of Switzerland, Norway, the St. Lawrence with her rapids and islands, the picturesque loveliness of Loch Katrine, added to the arctic wonders of the high latitude of 60°.

The lack of intense cold in Alaska arises from the reversal of the Japan current; and the large amount of moisture and rain is derived from the vast ranges of snow-clad mountains continually meeting the warmer air from the waters by which they are encompassed.

This afternoon a sailor swung a small empty

mucilage-bottle from the yard-arm; and we practised on it with our Winchesters, my rifle being the lucky one to reach it at the second shot.

23^d. — Still in English waters, British Columbia being on our right. When foggy the fog-horn is frequently sounded, the echo from the shores giving warning of our closeness. During the night we were forced to stop, waiting for a turn in the tide, the opposing current being too strong.

Passed several Indian burial-grounds; little white flags on poles denoting the mounds where their medicine-men and chiefs, "*tigees*," are buried.

On Queen Charlotte's Sound we experienced a slight swell.

A dozen whales are spouting a few hundred yards off: there are also several Gona-birds, somewhat resembling the Cape-albatross in flight and color; although I have not heard of its bones being as yet put to a similar use, — viz., pipe-stems, — I think it practicable. The bird measures often eight feet from tip to tip. Numbers of bald eagles pass over the vessel, with occasionally a black one. Porpoises, shags, — a kind of black water-fowl, — black-fish, grampuses, and ducks innumerable, enliven the waters.

24th. — I began to realize the eulogy which Lord Dufferin pronounced on British Columbia and Alaska, extolling its scenery as being the most superb in the world. The advantage of travelling in this lazy manner, passing one's time in luxurious idleness, is very great. Each morning our eyes feast on new wonders; for, while we are spending the nights in sleep, one hundred and eighty miles farther north in this strange country makes a change of scene.

As we first looked from the ship's side this morning, the channel had greatly narrowed during the night, and a stone might almost be slung against either shore. Waterfalls tore down in headlong career, foaming, roaring, and finally breaking into the salt water, — meltings from the snowy peaks, or the outlets of lakes secreted far up in the hills. As we meandered in our snake-like course, each new turn seemingly being the end of our journey, the opposing mountains on our approach slowly yielded the hitherto hidden gorge, which they appeared loath to disclose. Landslides often streaked the mountain sides, caused by the avalanches of the snow above: the track made by the slide soon fills up by a new undergrowth of a low, tough, elastic bush, from which the Indians make their ropes and baskets.

The vegetation grows so thickly on these

mountains, down to the very last morsel of earth untouched by the lapping of the waters, that nearly every pine after reaching a certain height dies from starvation, then falls and decays, returns to earth, and in turn supplies to others the very nourishment which he himself had in life struggled for in vain.

Thick over the mountain sides, all the taller trees were dead; and we found, by observing the thinness of soil which the slides revealed, that all the larger trees were starved to death.

Occasionally we attempted revolver-shots at a passing gull or floating limb, and so the hours wore on.

Later the sun became obscured by clouds: the air soon turned cold and exhilarating.

As I sit here in the captain's room, back of the wheel-house, a little forward of midships, only a slight tremor from the throbbing screw is perceptible; and on we float, gliding by untrodden woods, and inland lakes without a doubt filled with trout whose fastidious tastes have never yet been tempted by a carefully constructed fly.

The dogs are on the deck, playing tag around the windlass, or chasing their ever-escaping tails. Last night, having left several pages of my journal on the sofa, through the inborn love of a young dog for tearing paper, I was forced

to attempt a little mosaic-work before re-copying; although, owing to the spaniel pup's generosity, I found that he had kindly refrained from swallowing any of the fragments.

We hope to reach the lower portion of Alaska by midnight, our course for the last two days having been through British waters.

Alaska is a vast country, more than twice larger than the thirteen original States. Its breadth from east to west in direct line is two thousand two hundred miles, and from north to south one thousand four hundred miles; and its most western island is farther west of San Francisco than San Francisco is west of the coast of Maine. The mainland lies between $54^{\circ} 40'$ and 71° north latitude, and between 130° and 170° west longitude. But the island of Attu, the more western of the Aleutian chain, is $187\frac{1}{2}^{\circ}$ west longitude; and the western boundary of Alaska, according to the Russian treaty, is 193° west of Greenwich, — very near to Asia. Quoddy Light on the east coast of Maine is in latitude $44^{\circ} 47'$, longitude $66^{\circ} 58'$ west. San Francisco is latitude $37^{\circ} 48'$, longitude $122^{\circ} 26'$. Attu is 53° north latitude, $187\frac{1}{2}^{\circ}$ west longitude: hence Attu is just about as far west of San Francisco as San Francisco is west of the east coast of Maine.

From the maps you will see how we are

severed from Alaska by the British Possessions. No part of Alaska comes anywhere near the United States. One of the chief boundary-lines between Alaska and the British Possessions is a line drawn due north from the top of Mount St. Elias to the Polar Sea.

Alaska, with certain improvements, was purchased by treaty with Russia made March 30, 1867; and it was delivered in due form Oct. 18, in that year, upon payment of \$7,200,000. Secretary Seward regarded this acquisition as quite the crowning act of his official life.

At the time of the transfer, Russia claimed a population of sixty-six thousand: possibly there were forty-five thousand, Indians and all. The estimate made by Gen. Halleck in 1869, while secretary of war, makes the number of Indians sixty thousand. Mr. Dall makes the population far less. Estimates from the best sources which we could obtain lead us to believe that there are now in Alaska some forty thousand Indians and about five hundred white men.

These Indians seem to have the same general appearance and characteristics, — the tribes differing no more than families differ in England or America. They are everywhere about the same color, — much the same shade as the Chinese. They are as low in the scale of

humanity as North-American Indians generally are ; that is, ignorant, ungrateful, treacherous, cruel savages.

Sentimental people who read Cooper's novels for history, and overflow with "telescopic benevolence," fancy that the "noble Indian" has contracted his chief vices from the white man. But the red men of Alaska have been so isolated that here we can see them in the pure state of unadulterated savagery. It cannot be said, with the smallest degree of truth, that these red Pagans have been corrupted by white Christians.

The Rev. Sheldon Jackson, missionary to the Indians, in his valuable work upon Alaska, shows the utter degradation of these savages ; citing in proof of their inhuman cruelties, diabolical superstitions, and revolting customs, his own experience, the published statements of the Rev. W. W. Kirby, Mr. Brady, Mr. Dall, Mr. Young, Mrs. McFarland, Mr. Duncan, and others.

The Rev. W. W. Kirby, a missionary, says, —

"In common with all savage people, the Indians regard their women as slaves, and compel them to do the hardest work, while they look lazily on, enjoying the luxury of a pipe, and often requite their services with harsh words and cruel blows. They are inferior in looks, and fewer in number than the men. The

former probably arises from the cruel and harsh treatment they receive, and the latter is caused in a great measure by the too-prevalent custom of female infanticide. Spared in infancy, the lesson of inferiority is early burned into the lives of the girls. While mere babes they are sometimes given away or betrothed to their future husbands. And when they arrive at the age of twelve or fourteen years, among the Tinneh, the Thlinkets, and others, they are often offered for sale. For a few blankets a mother will sell her own daughter for base purposes, for a week, a month, or for life. All through that vast land, wretched woman is systematically oppressed, — made prematurely old in bearing man's burdens as well as her own. In some sections, all the work but hunting and fighting falls upon her, — even the boys transferring their loads and work to their sisters.

“Said a great chief, ‘Women are made to labor. One of them can haul as much as two men can do. They pitch our tents, make and mend our clothing,’ etc.

“And, as if their ordinary condition were not bad enough, the majority of the slaves are women. The men captured in war are usually killed, or reserved for torture; but the women are kept as beasts of burden, and often treated with great inhumanity. The master's power over them is unlimited. He can torture or put them to death at will. Sometimes, upon the death of the master, one or more of them are put to death, that he may have some one to wait upon him in the next world.

“Polygamy, with all its attendant evils, is common

among many tribes. Those wives are often sisters. Sometimes a man's own mother or daughter are among his wives. If a man's wife bears him only daughters, he continues to take other wives until he has sons. One of the Nasse chiefs is said to have had forty wives.

"On the Upper Yukon, the man multiplies his wives as the farmer his oxen. The more wives, the more meat he can have hauled, the more wood cut, and more goods carried.

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 "After marriage they are practically slaves of their husbands. Among some tribes, their persons are at the disposal of visitors or travellers, guests of their husbands. They are sometimes, in Southern Alaska, sent to the mines, while their husbands live in idleness at home on the wages of their immorality. . . . During our visit to Fort Wrangell in 1879, an Indian killed his wife, and brought her body into the village for a funeral. No one could interfere. According to their customs, he had bought her as he would buy a dog, and if he chose he could kill her as he would kill a dog."

Mr. W. H. Dall of the Smithsonian Institute in his work on Alaska says, —

"Polygamy is common among the rich. Upon arriving at a marriageable age, the lower lip of the girl is pierced, and a silver pin inserted; the flat head of the pin being in the mouth, and the pin projecting through the lip over the chin. Many of them, men as well as women, wear a silver ring in the nose

as well as in the ears. After marriage the silver pin is removed from the woman's lip, and a spool-shaped plug, called a labret, about three-quarters of an inch long, is substituted in its place. As she grows older, larger ones are inserted, so that an old woman may have one two inches in diameter.

“Their method of war is an ambush or surprise. The prisoners are made slaves, and the dead are scalped. The scalps are woven into a kind of garter by the victor. Dead slaves are cast into the sea.

“They believe in the transmigration of souls from one body to another, but not to an animal; and the wish is often expressed, that in the next change they may be born into this or that powerful family. Those whose bodies are burned are supposed to be warm in the next world, and the others cold. If slaves are sacrificed at their burial, it relieves their owners from work in the next world.”

We saw many Indian women with these plugs and flat silver pins in their lips.

The Indian record of the creation of the world differs from that of Moses. Mr. Dall says, —

“Their religion is a feeble polytheism. Yehl is the maker of wood and waters. He put the sun, moon, and stars in their places. He lives in the east, near the head-waters of the Naass River. He makes himself known in the east wind, *ssankheth*, and his abode is *Naasshak-yehl*.

“There was a time when men groped in the dark

in search of the world. At that time a Thlinket lived, who had a wife and sister. He loved the former so much that he did not permit her to work. Eight little red birds, called *kun*, were always around her. One day she spoke to a stranger. The little birds flew, and told the jealous husband, who prepared to make a box to shut his wife up. He killed all his sister's children because they looked at his wife. Weeping, the mother went to the seashore. A whale saw her, and asked the cause of her grief, and, when informed, told her to swallow a small stone from the beach, and drink some sea-water. In eight months she had a son, whom she hid from her brother. This son was Yehl.

"At that time the sun, moon, and stars were kept by a rich chief in separate boxes, which he allowed no one to touch. Yehl by strategy secured and opened these boxes, so that the moon and stars shone in the sky. When the sun-box was opened, the people, astonished at the unwonted glare, ran off into the mountains, woods, and even into the water, becoming animals or fish. He also provided fire and water. Having arranged every thing for the comfort of the Thlinkets, he disappeared where neither man nor spirit can penetrate.

"There are an immense number of minor spirits, called *yekh*. Each *shaman* has his own familiar that does his bidding, and others on whom he may call in certain emergencies. These spirits are divided into three classes, — *Khi-yekh* (the upper ones), *Takhi-yekh* (land-spirits), and *Tekhi-yekh* (sea-spirits). The first are the spirits of the brave killed in war, and dwelling in the North: hence a great display of

northern lights is looked upon as an omen of war. The second and third are the spirits of those who died in the common way, and who dwell in Takhan-khov. The ease with which these latter reach their appointed place is dependent on the conduct of their relations in mourning for them."

A *shaman* is a wizard, or sorcerer, a priest of shamanism. Shamanism is a religion of awful superstition which prevails in Northern Asia, consisting in a belief in evil spirits, and in the necessity of averting their malign influence by magic spells and horrid rites. The prevalence of this religion among the Alaska Indians is one of the many evidences of their Asiatic origin.

"In addition to these spirits, every one has his *yekh*, who is always with him, except in cases when a man becomes exceedingly bad, when the *yekh* leaves him. These spirits only permit themselves to be conjured by the sound of a drum or rattle. The last is usually made in the shape of a bird, hollow, and filled with small stones. These are used at all festivities, and whenever the spirits are wanted.

"As the good spirits, from the very nature of the case, will not harm them, the Indians pay but little attention to them. They give their chief attention to propitiating the evil spirits: so that their religion practically resolves itself into devil-worship, or demonolatry. This is called shamanism, or the giving of offerings to evil spirits to prevent their doing

mischievous to the offender. It is said to have been the old religion of the Tartar race, before the introduction of Buddhism, and is still that of the Siberians. Indeed, long ago Paul declared, 'The things which the Gentiles sacrifice, they sacrifice to devils, and not to God' (1 Cor. x. 20). The *shaman* is the priest, who performs these rites, and is the sorcerer, or medicine-man, of the tribes: he has control not only of the spirits, but, through the spirits, of diseases, of the elements, and of nature; he holds in his power success or misfortune, blessing or cursing.

" 'The honor and respect,' says Dall, 'with which a *shaman* is regarded, depends on the number of spirits under his control, who, properly employed, contribute largely to his wealth. For every one of them, he has a name and certain songs. Sometimes the spirits of his ancestors come to his assistance, and increase his power, so that it is believed he can throw his spirits into other people who do not believe in his arts. Those unfortunate wretches to whom this happens suffer from horrible fits and paroxysms.'

Bancroft, in his "Native Races on the Pacific Coast," thus speaks of shamanism:—

"Thick black clouds, portentous of evil, hang threateningly over the savage during his entire life. Genii murmur in the flowing river; in the rustling branches of the trees is heard the breathing of the gods; goblins dance in the vapory twilight, and demons howl in the darkness. All these beings are

hostile to man, and must be propitiated by gifts and prayers and sacrifices; and the religious worship of some of the tribes includes practices which are frightful in their atrocity. Here, for example, is a rite of sorcery as practised among the Haidahs, one of the Northern nations:—

“When the salmon season is over, and the provision of winter has been stored away, feasting and conjuring begin. The chief, who seems to be principal sorcerer, and, indeed, to possess little authority save for his connection with the preterhuman powers, goes off to the loneliest and wildest retreat he knows of or can discover in the mountains or forests, and half starves himself there for some weeks till he is worked up to a frenzy of religious insanity, and the *nawloks*—fearful beings of some kinds not human—consent to communicate with him by voices or otherwise. During all this observance, the chief is called *taamish*; and woe to the unlucky Haidah who happens by chance so much as to look on him during its continuance! Even if the *taamish* do not instantly slay the intruder, his neighbors are certain to do so when the thing comes to their knowledge; and if the victim attempts to conceal the affair, or do not himself confess it, the most cruel tortures are added to his fate. At last the inspired demoniac returns to his village, naked, save a bearskin or a ragged blanket, with a chaplet on his head and a red band of elder-bark about his neck. He springs on the first person he meets, bites out and swallows one or more mouthfuls of the man's living flesh wherever he can fix his teeth, then rushes to another and another, repeating his revolting meal till he falls into

a torpor from his sudden and half-masticated surfeit of flesh."

All the Alaska Indians are held in abject fear by the sorcerers, or medicine-men. Witchcraft, with all its awful consequences, is of universal belief.

"The medicine-man, or sorcerer, or *shaman*, as he is often called, demands large reward before he begins his incantations to heal the sick; and, if he fails, he always declares that the failure is due to witchcraft. He then commences to find the witch, and he never fails. Hand over hand, as if following an invisible cord, he traces the witch, who is then tortured to death. He or she—as the case may be—is bound, with the head drawn between the knees, and then usually placed under the floor of some uninhabited hut until the victim is dead."

One of the officers of our government at Sitka told us of having rescued a young man whom he knew, from that horrid torture; but he died very soon. Every Indian man and woman tried to conceal where the victim of their horrid superstition was concealed.

We derived much valuable information at Sitka, about the Indians, from the Rev. John G. Brady, who was educated at Yale College, and came to Alaska as a Presbyterian missionary under the patronage of the late William E. Dodge of New York, about six years ago. His

views about Indian character, and the chances of Indian civilization, agree with those of every intelligent man whom we met: they are not very encouraging.

In the autumn of 1857 Mr. William Duncan was sent out from England to Alaska by the Church Missionary Society. On arrival at Fort Simpson, he gives the following account of what he found:—

"I found located here nine tribes of Tsimpsen Indians, numbering by actual count two thousand three hundred souls. To attempt to describe their condition would be but to produce a dark and revolting picture of human depravity. The dark mantle of degrading superstition enveloped them all; and their savage spirits, swayed by pride, jealousy, and revenge, were ever hurrying them on to deeds of blood. Their history was little else than a chapter of crime and misery. But worse was to come. The following year, the discovery of gold brought in a rush of miners. Fire-water now began its reign of terror, and debauchery its work of desolation. On every hand were raving drunkards and groaning victims. The medicine-man's rattle and the voice of wailing seldom ceased. . . .

"The other day we were called upon to witness a terrible scene. An old chief in cold blood ordered a slave to be dragged to the beach, murdered, and thrown into the water. His orders were quickly obeyed. The victim was a poor woman. Two or three reasons are assigned for this foul act. One is,



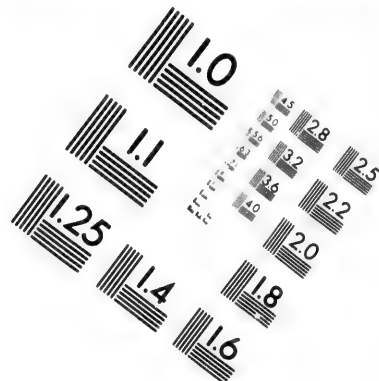
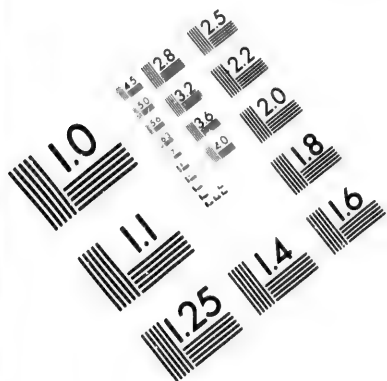
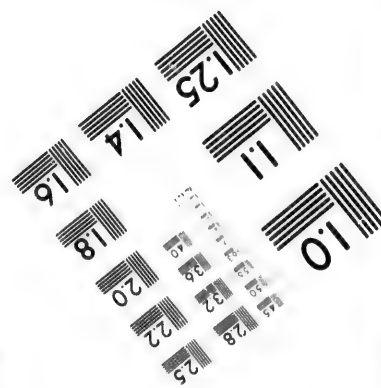
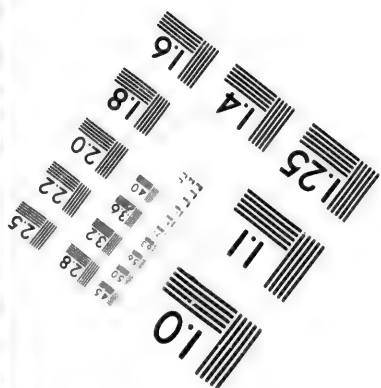
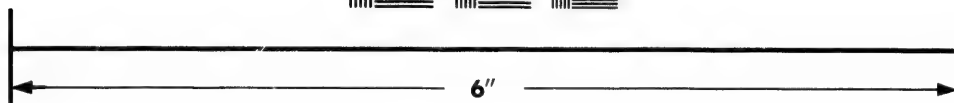
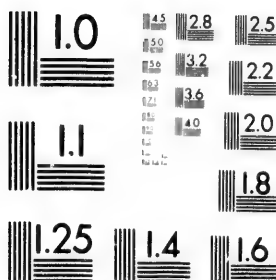


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that it is to take away the disgrace attached to his daughter, who had been suffering for some time with a ball-wound in the arm. Another report is, that he does not expect his daughter to recover, so he has killed this slave in order that she may prepare for the coming of his daughter into the unseen world. I did not see the murder, but immediately after saw crowds of people running out of the houses near to where the corpse was thrown, and forming themselves into groups at a good distance away, from fear of what was to follow. Presently two bands of furious wretches appeared, each headed by a man in a state of nudity. They gave vent to the most unearthly sounds; and the naked men made themselves look as unearthly as possible, proceeding in a creeping kind of stoop, and stepping like two proud horses, at the same time shooting forward each arm alternately, which they held out at full length for a little time in the most defiant manner. Besides this, the continual jerking of their heads back, causing their long black hair to twist about, added much to their savage appearance. For some time they pretended to be seeking for the body; and the instant they came where it lay, they commenced screaming and rushing around it like so many angry wolves. Finally they seized it, dragged it out of the water, and laid it on the beach, where they commenced tearing it to pieces with their teeth. The two bands of men immediately surrounded them, and so hid their horrid work. In a few minutes the crowd broke again, when each of the naked cannibals appeared with half of the body in his hands. Separating a few yards, they commenced, amid horrid yells, their

still more horrid feast of eating the raw dead body. The two bands of men belonged to that class called 'medicine-men.'

"I may mention that each party has some characteristics peculiar to itself; but in a more general sense their divisions are but three,—viz., those who eat human bodies, the dog-eaters, and those who have no custom of the kind. Early in the morning the pupils would be out on the beach, or on the rocks, in a state of nudity. Each had a place in the front of his own tribe; nor did intense cold interfere in the slightest degree. After the poor creature had crept about, jerking his head and screaming, for some time, a party of men would rush out, and after surrounding him would commence singing. The dog-eating party occasionally carried a dead dog to their pupil, who forthwith commenced to tear it in the most dog-like manner. The party of attendants kept up a low, growling noise, or a whoop, which was seconded by a screeching noise made from an instrument which they believe to be the abode of a spirit. In a little time the naked youth would start up again, and proceed a few more yards in a crouching posture, with his arms pushed out behind him, and tossing his flowing black hair. All the while he is earnestly watched by the group about him; and when he pleases to sit down, they again surround him, and commence singing. This kind of thing goes on, with several different additions, for some time. Before the prodigy finally retires, he takes a run into every house belonging to his tribe, and is followed by his train. When this is done, in some cases he has a ramble on the tops of the same houses, during

which he is anxiously watched by his attendants, as if they expected his flight. By and by he condescends to come down; and they then follow him to his den, which is marked by a rope made of red bark being hung over the doorway so as to prevent any person from ignorantly violating its precincts. None are allowed to enter that house but those connected with the art: all I know, therefore, of their further proceedings, is that they keep up a furious hammering, singing, and screeching, for hours during the day.

"Of all these parties, none are so much dreaded as the cannibals. One morning I was called to witness a stir in the camp which had been caused by this set. When I reached the gallery I saw hundreds of Tsimpsians sitting in their canoes, which they had just pushed away from the beach. I was told that the cannibal party were in search of a body to devour: and, if they failed to find a dead one, it was probable they would seize the first living one that came in their way; so that all the people living near the cannibals' house had taken to their canoes to escape being torn to pieces. It is the custom among these Indians to burn their dead; but I suppose, for these occasions, they take care to deposit a corpse somewhere in order to satisfy these inhuman wretches.

"These, then, are some of the things and scenes which occur in the day during the winter months; while the nights are taken up with amusements, singing, and dancing. Occasionally the medicine-parties invite people to their several houses, and exhibit tricks before them of several kinds. Some of

the actors appear as bears ; while others wear masks, the parts of which are moved by strings. The great feature of their proceedings is to pretend to murder and then restore to life. The cannibal, on such occasions, is generally supplied with two, three, or four human bodies, which he tears to pieces before his audience. Several persons, either from bravado or as a charm, present their arms for him to bite. I have seen several whom he had thus bitten, and I hear two have died from the effects."

Mr. Duncan is said to have met with considerable success in taming many of these inhuman creatures.

In 1878 a meeting was held, called a convention, which lasted for two days, and over which Mrs. N. R. McFarland presided. We learn that she is a woman of great Christian energy and ability, and that she has had much success in teaching Indian girls. She gives the following account : —

"The schoolhouse was packed full. We had a great many long speeches, until it began to grow dark. I had written out some laws, with which they seemed to be pleased. But as it was now five o'clock in the afternoon, I proposed that they should adjourn until the next morning, and that I would take the rules home, and copy them off ready for their signatures. The next morning at daybreak, Shus-taks, a chief, came out on the end of the point, as he always does when he has any thing to say to the

people. He then made a great speech, telling them that he knew all about what we had been doing the day before, and that I was trying to make war between him and the other people.

"When we met at the schoolhouse, that morning, we concluded to send an invitation to Shus-taks to come over, and hear the laws read, and, if possible, conciliate him. We also invited Mr. Dennis, the deputy collector of customs, to be present.

"I had the first talk with Shus-taks. He was very hostile, and made bitter remarks. I tried to convince him that I had come up there to do him and his people good, and then read him the laws we had adopted.

"He replied that he would like to know what I had to do with the laws, — that I had been sent there to teach school, and nothing more. . . .

"Mr. Dennis then had a talk with him, but I do not think it made the least impression.

"Then Toy-a-att made a talk to Shus-taks, indeed, preached him a solemn sermon. He told him that he was now an old man, and could not live long; that he wanted him to give his heart to the Saviour who had died for him; that if he did not, but died as he was living, he must be forever lost.

"Shus-taks replied that he did not care if he did go to hell-fire, — that his people were all there. He then left the meeting."

I believe there is a general opinion that the chief told the truth about his people.

On the 10th of July, 1878, Mrs. McFarland writes, —

"We have had more witchcraft here, and the effect has been very bad on the minds of the young people. Some of my brightest and best scholars have been led away by it. As we have no kind of law, none of the whites felt that they had any right to interfere."

On the 5th of December, 1878, Rev. Mr. Young, a missionary, writes from Fort Wrangell:—

"We have gained a victory over witchcraft. Shus-taks and his wife were both sick, and of course must blame some one with having worked 'bad medicine' against them. Young Shaaks, successor of the head chief, and nephew to Shus-taks, gathered up his friends, and caught an old man, one of our church-attendants, and accused him of being 'bad medicine.' They carried him to Shustaks' house, stripped him naked, tied him most cruelly, hand, foot, and head, and put him into a dark hole under the floor.

"This happened at night. The next morning the clerk of the custom-house and myself went over to the house where all Shus-taks' and Shaaks' friends were assembled. They were very determined to resist any encroachment on their ancient customs; but we were equally firm and persistent that they should release him, and tie up nobody else without first consulting us."

Slaves are held in Alaska. Rev. Mr. Brady says,—

"These natives are very saving of every thing to which the least value is attached. Some of the

chiefs are worth six or eight thousand dollars in blankets, houses, skins, and the like. Some are wealthy on account of their slaves."

We saw, at Pyramid Harbor, an old man and his wife and son, who were the slaves of a young son of a chief, who sold their services, and could sell them or kill them at will.

We speak of the Indians as wards of the nation. What hypocrisy, sham, and arrant humbug it all is! Wards of the nation! Great Christian guardians! who make no law, and exercise no restraint over their wards against their enslaving, maiming, and murdering one another, or against their diabolical practices of selling their women for debauchery, or torturing on charges of witchcraft, for revenge or gain.

At the recent excursion on the Northern Pacific Road, a Crow Indian appeared with three bloody scalps of another tribe strung around his neck, — trophies of his recent murders, — strutting in vainglory to see Christian men and women stare at the evidence of his atrocities. Was he arrested, and his crime inquired into? was he punished or even restrained? Not a bit of it. He made boasting of his crimes.

The great Crow Indian Reservation, containing a vast quantity of some of the best lands in Montana, lies along the Northern Pacific road, partly between it and the Yellowstone

Park: here travellers can witness slavery, polygamy, the sale of women for debauchery, torture, and murder, without punishment or restraint. But it seems that these atrocities are not unlawful *for Indians*.

The absurdity of our laws relating to the Indians will appear by the following decision pronounced by our highest tribunal on the 14th of December, 1883:—

“AN INDIAN MURDERER NOT LIABLE TO FEDERAL LAW.

WASHINGTON, Dec. 14.

“A decision was rendered by the Supreme Court of the United States to-day, in the original *habeas corpus* case of the Sioux Indian Crow Dog, who was tried in the District Court for the First Judicial District of Dakota for the murder of another Sioux Indian named Spotted Tail, and, upon being found guilty, was sentenced to suffer death. Counsel for the prisoner maintained here that the crime charged was not an offence under the laws of the United States; that the District Court of Dakota had no jurisdiction to try him, and that its judgment and sentence were void. The question presented, therefore, in this court, is, whether the express letter of section 2,146 of the Revised Statutes, which excludes from the jurisdiction of the United States the case of a crime committed in the Indian country by one Indian against the person or property of another Indian, has been repealed. This court holds that it has not; that, in such a case as the present one,

the Indians have a right to try and punish the criminal according to their own laws and customs, without interference by the United States; that the First District Court of Dakota had no jurisdiction, and that the imprisonment of Crow Dog is therefore illegal. The writ of *habeas corpus* and *certiorari* prayed for will accordingly be issued. Opinion by Justice Matthews."

I am told that no other decision could have been made under our preposterous system of Indian polity. It is to be hoped that the government proposed for Alaska will be an improved one.

Extend the laws over our entire domain. Abolish slavery, polygamy, the sale of women for vile use, and punish the Indian for the same crimes and in the same way as we punish white men. Until this is done, what can a handful of feeble missionaries do to civilize these savages?

It was the testimony of all witnesses whom we met, that the Indian convert generally used the certificate of conversion to obtain gratuities or higher pay for what work he might do; that, with very rare exceptions, they had no other idea of the value of Christianity. At Sitka a gentleman in the service of our government told us that a young Indian woman showed him the certificate of her baptism and conversion, to enhance the price of her vicious attractions.

Never a man did we interrogate, whether a missionary or trader, who did not assure us, that, as a rule, the Indian was destitute of gratitude; that he appreciated no kindness; that he was always treacherous and cruel, and was influenced by no motive but revenge, fear, and the greed for others' property; and nearly all said that no Indian wife, whether of white man or red, was ever true to her husband if tempted by a trinket. And yet we were assured that occasionally a young Indian girl married a white man, over whom her fascinations were amazing.

In a large salmon-cannery at Pyramid Harbor, we saw nineteen Chinamen and some twenty Indians working at the same long table. But for the dress and pigtail, we could not tell the Chinese from the Alaska Indians, so close was the resemblance of features, and the color was exactly the same. Upon inquiry we found that several Chinamen had intermarried with squaws, that they seemed to have a ready understanding of each other, and could communicate through their language with greater facility than the whites. I imagine that they must have sprung from the same original stock.

But almost conclusive evidence of the Asiatic origin of the Alaska Indians is the prevalence of shamanism, — that terrible religion, whose priests are called shamans, wizards, or sorcer-

ers, practising the same horrid rites in Alaska as in Northern Asia. A sorcerer's mantle, inwrought with strange devices, was presented to my father in Alaska.

The Aleutian chain of islands, belonging to Alaska and running near to Asia, may have formed the bridge of emigration in the earlier ages, or Behrings Straits may have been easily crossed.

The climate of the north-west coast proves to be much milder than was supposed: it is found that the temperature of the Aleutian Islands is quite as moderate as that of Virginia or Kentucky.

The Alaska Indians are said to be less ferocious than some of the more southern tribes of North America, but they are bad enough. By the official report of Gen. Halleck, made in 1869, it appears that the Haidas are hostile to the whites, "and a few years ago captured a trading-vessel, and murdered the crew," and that the "Stickeens also a few years ago captured another trading-vessel, and murdered the hands;" that the "Kakes have long been hostile, making distant warlike incursions in their canoes;" that "they several times visited Puget Sound, and in 1857 murdered the collector of customs at Port Townsend in the territory of the United States."

At the salmon-cannery at Cape Fox, we stopped to unload some freight. Then we sailed through miles of whale-feed, a kind of oily substance composed of a species of jelly-fish, floating on the surface, forming food for the whale. Its color is yellow ochre, tinged with orange; and it resembles the *potage bisque* which one would order in a *cabinet particulier* at Bignon's. The Indians, after drying, use it as an article of food. The Indians cure no food with salt.

On the 25th of July we reached Fort Wrangell. As we entered Wrangell Harbor, the view presented was transcendent in its grandeur. The little village was spread along the shore at the base of a woody hill; mountains of snow rising up in graduated heights, tier upon tier, gallery upon gallery, backed by icy pinnacles, curiously chiselled lance-tipped spires, gables and obelisks: it seemed like a mighty coliseum with its huge granite benches towering to the skies; while we were sailing over the liquid arena which reflected this exalted scene.

The vast semicircle of snow-mountains was in our front: below the snow-line, the dense forests of deep-green firs made a striking contrast with the snow. The sun was shining in our rear. The waters were clear and smooth as a polished mirror, and so reflected this marvellous

show of green and white and glittering sheen, that we seemed sailing in liquid air, over these stupendous mountains, into the heavens above. Neither the Andes nor the Alps could present such a scene of entrancing wonder. All were still as we slowly, and with scarce a sound, moved through the silent waters, and seemed to look down upon the mirrored mountain tops as though we were sailing through the skies.

The position of the bright sun, the stillness, and the hour of the day, combined to present a vision which did not seem of earth, and which will never fade from memory.

Fort Wrangel was formerly much more populous, by reason of the gold-mines, which no longer seem as rich as formerly; white men for that reason leaving their old quarters, seeking new claims farther north, or returning to civilization. Only a few dozen whites live here.

The greater part of the buildings along the shore belong to the Indians, and are made of rough hewn wood, the floor being covered with skins. Huge poles, some reaching as high as sixty feet, with carved figures up the whole length, stand in front of the graves and chiefs' houses; the proportionate height of the wooden column marking the dignity and grandeur of its respective owner, the carvings signifying the genealogy of the family. Over one of the houses I read the following inscription:—

ANATLASH [Owner's name].

"Let all who read know that I am a friend of the whites.

"Let no one molest this house.

"In case of my death, it belongs to my wife."

Large numbers of dug-out canoes lined the beach; and yelping Indian dogs, called cayotes, — half fox, half wolf, — scuttled away from behind the logs and stumps at our approach.

Alaska contains many volcanoes. Grewingk mentions sixty-one, of which number only ten remain active.

This remarkable country contains hot and mineral springs, the former in many districts being used by the natives for cooking their food. The crater of Goreloi is said to hold a huge boiling mineral spring eighteen miles in circumference. The island of Unalashka has thermal springs containing sulphur in solution.

Copper River, above Juneau, contains large deposits of the metal. A pipe was presented to me, carved by an Indian out of some tough black wood, in the form of a dolphin, forming a complete circle; the aperture in the centre meant for the hand; the entire inside of the bowl being heavily lined with copper from this river. I pity the unfortunate white man who shall be the first to break it in for smoking: an Indian can appreciate and relish that which no civilized man's digestion could endure.

Most of the deep chasms and ravines among the snow-mountains contain glaciers. Alaska has more and far larger glaciers than any other part of the known world. In Lynn Channel, near to Pyramid Harbor, latitude $59^{\circ} 12'$, we saw a glacier twelve hundred feet thick at the lower end. Mount Fairweather is said to have one extending near fifty miles to the sea, being three miles wide and three hundred feet thick. The great glacier on the Stickeen River is forty miles long, over four miles wide, and five hundred feet thick. The Eagle Glacier, on the right as we go up Lynn Channel, is laid down on the government chart as "fully twelve hundred feet high." The glaciers and formation of icebergs at Takou Inlet are particularly described later on.

In no portion of the Alps have I encountered gigantic frozen rivers equal to those of Alaska. The ones which I have crossed, I can personally speak of; viz., the world-known Mer de Glace, Glacier des Bossus, and the Gorner Grat with its six tributary frozen rivers.

The aurora borealis, far excelling any firework display at the Crystal Palace, is seen to full advantage in the northern districts of Alaska lying within the arctic circle. Bancroft describes it "as flashing out in prismatic coruscations, throwing a brilliant arch from east

to west, — now in variegated oscillations, graduating through all the various tints of blue and green and violet and crimson, darting, flashing, or streaming in yellow columns upward, downward; now blazing steadily, now in wavy undulations, sometimes up to the very zenith; momentarily lighting up the surrounding scenery, but only to fall back into darkness.”

Whymper, in describing one display that he personally witnessed on the Yukon, represents it as a vast undulating snake crossing the heavens.

“Singularity enough,” says Dall, “they call the constellation of Ursa Major by the name of *Okil-Ok'puk*, and consider him to be ever on the watch while the other spirits carry on their festivities. None of the spirits are regarded as supreme; nor have the Innuít tribes any idea of a deity, a state of future reward or punishment, or any system of morality.”

Alaska possesses one of the largest rivers in the world, — the Yukon, navigable for eighteen hundred miles: its full length is estimated to be two thousand miles.

Fish and lumber seem the only inexhaustible wealth which Alaska produces. Fur-bearing animals will likely disappear with the approach of civilization; and even the seal-fisheries on the little island of St. Paul and St. George will

at the present rate of destruction vanish in time, I fear, as have the buffalo from the plains, whose herds in former years were considered so vast as to be incapable of final extermination.

The Pribyloff group of islands in Behring Sea, leased from the United States by the Alaska Commercial Company, pays the government an annual rental of \$55,000, and a royalty of \$262,500 on the hundred thousand seals allowed by law to be killed. The two small islands before mentioned paid into the United-States Treasury, between 1871 and 1880, two and a half mil'ion dollars.

With regard to the fisheries, having visited all the most important canneries in Alaska, I should say that the catching of salmon, cod, halibut, and herring would remain a profitable industry for ages to come; for, though thousands of men are laying their seines yearly in the Columbia, the salmon "runs" are just as large, and the fish just as good, as ever.

I quote the following, told by a missionary on the Naass River:—

"I went up to their fishing-ground on the Naass River, where some five thousand Indians had assembled. It was what is called their 'small fishing:' the salmon-catch is at another time. These small fish form a valuable article for food, and also for oil.

They come up for six weeks only, and with great regularity. The Naass, where I visited, was about a mile and a half wide, and the fish had come up in great quantities, — so great that with three nails upon a stick an Indian could rake in a canoe-full in a short time. Five thousand Indians were gathered together from British Columbia and Alaska, decked out in their strange and fanciful costumes. Their faces were painted red and black, feathers on their heads, and imitations of wild beasts on their dresses.

“Over the fish was an immense cloud of sea-gulls — so many and so thick, that, as they hovered about looking for fish, the sight resembled a heavy fall of snow. Over the gulls were eagles soaring about, watching their chance. After the small fish had come larger fish from the ocean. There was the halibut, the cod, and the porpoise, and the fin-back whale, — man-life, fish-life, and bird-life, all under intense excitement. And all that animated life was, to the heathen people, a life of spirits. They paid court to, and worshipped, the fish that they were to assist in destroying; greeting them, ‘You fish! you fish! You are all chiefs, you are!’”

26th. — Three months ago this very hour, — 11.30 A.M., — our little steamer, the “Eureka,” struck her fatal rock in Peril Straits.

As we left Wrangell at twilight, the day scene was soon transformed into revelries of moonlight, its gleams flooding the ice summits, and lighting up the dark gorges.

The rain begins to descend, and we now

realize the humidity of Alaska south of the arctic circle. Nearing Sitka I fully appreciated the superb character of the adjacent regions ; and though a drizzling mist is perpetually descending, and the sun no longer adds coloring to the picture, enough of beauty is present to create enthusiasm.

The town, encompassed by mountains, overlooks the Pacific towards the west. Mount Edgecombe, the barometer of the village, protects it from the sea. Whenever rain is imminent, as a precursor of its advent, misty clouds envelop the extinct crater of this once active volcano. Its inward rumblings and deadly out-throw of lava are no longer felt ; and this Vesuvius, standing guard over a bay beautiful as Naples, bears tidings of the coming storm.

As a natural bulwark for the town, innumerable little islands lie dotted throughout the harbor, against whose rugged opposition the waves lose their force.

Sitka contains some three hundred whites, one hundred being Americans, two hundred Russians or Creoles.

Through the courtesy of Major Gouverneur Morris, United-States treasury-agent, collector of the port at Sitka, with whom and his wife we passed a pleasant evening, I obtained some trout-fishing on a little stream near by ; and,

though raining hard, in about one hour his secretary and I caught a dozen. The trout here, as elsewhere in Alaska, seem to prefer bright warm days, and seem the opposite in every respect to the Eastern species. In this small stream are four varieties: 1st, whitish ground, with dark-brown spots, up to two pounds in weight; 2d, dark, whitish-green body, with a black strip along the sides meeting, at right angles, other lines less clearly defined crossing over the back,—run very small, eight going to the pound; 3d, same ground as last, with pointed black spots, also very diminutive; 4th, similar in ground and markings as last, with hammer-nose, also small sized. All these species take salmon-roes or a trout's eye; and, in fact, throughout Alaska I met no one who could vouch to having seen a trout rise to an artificial fly. Whether this arises from lack of insects in these regions, I am unable to state. They bite vigorously, but are not gamey when once hooked. Those we caught were a couple of half-pounders, including one big fellow, considered the biggest brook-trout of that season, weighing one pound.

Afterwards the Russian priest, in company with his sister, a bright young girl, speaking English fluently, took us over the Russian

church, built in the form of a Greek cross, with an emerald-green dome surmounted by a tower containing a clock and five chimes. One wing, besides a curious font (the form of baptism being immersion), contains a picture of the Madonna and Child copied from the original at Moscow. The painting shows nothing but the faces; the background and the drapery being made of solid silver, the halo being executed in gold.

The church contains a large picture of the Last Supper, the crowns and vestments covered with silver. Immense candlesticks, candelabra, and a picture supposed to contain eleven pounds of wrought silver, and huge gilt frames, lend the inside a very rich appearance. Three broad steps and four doors lead us into the "holy of holies," across the threshold of which women are forbidden passage. Within stands the altar, little shrines, and closets containing magnificent robes of gold and silver brocade (together with handsome specimens of needle-work), from which most of the original jewels have been stolen or removed, and replaced by others less in value. One robe made of rich green velvet was particularly attractive, the bishop's crown being profusely adorned with pearls and amethysts. The dim religious light was wanting, the windows not even having been frosted.

The Rev. John G. Brady thus narrates the tradition concerning Mount Edgecombe : —

“This is a Mount Olympus for the natives. They say that the first Indian pair lived peaceably for a long time, and were blessed with children. But one day a family jar occurred. The husband and wife grew very angry at each other. For this the man was changed into a wolf, and the woman into a raven. The metamorphosed woman flew down into the open crater of Mount Edgecombe, lit on a stump, and is now holding the earth on her wings. Whenever there is thunder and lightning around the summit, it is only the wolf giving vent to his rage while he is trying to pull her off the stump. It would be a great calamity if she should lose her grip ; for then the earth would be upset, and all who live upon it perish. So, whenever it thunders, the Indians take stones, and pound on the floors of their houses, to encourage the raven to hold to the stump.”

We now ascend the hill to the old castle. The castle was twice destroyed by Mount Edgecombe when in active operation, — once by fire, and once by an earthquake.

Within this ruined remnant of the days when Baron Romanoff ruled with savage hand, — its walls made of vast hewn logs, riveted with copper fastenings, — hardly any thing but faded signs of the grandeur and decay of this once proud fortress remains as a landmark of the terrorism of those days. The old castle stands

high up on the rocks overlooking the lovely bay, and is used as a signal-station.

Old legends still haunt the spacious rooms; and when the wind howls through the doorways and rushes down the spacious chimneys, they tell many tales, of which I here quote two :—

“The legend runs, that, when Baron Romanoff was governor, he had living with him an orphan niece and ward, who was very beautiful. But when he commanded her to marry a powerful prince, who was a guest at the castle, she refused, having bestowed her heart on a handsome young lieutenant of the household. The old baron, who, like the rest of his race, was an accomplished diplomate, feigning an interest in the young lieutenant which he did not feel, sent him away on a short expedition, and in the mean time hurried on the preparations for the marriage of the poor countess to the prince. She, deprived of the support of her lover's counsels and presence, yielded to the threats of her uncle; and the ceremony was solemnized. Half an hour after the marriage, while the rejoicing and gayety was at its height, the young lieutenant strode into the ball-room, his travel-stained dress and haggard appearance contrasting strongly with the glittering costumes and gay faces of the revellers; and, during the silence that followed his ominous appearance, he stepped up to the hapless girl, and took her hand. After gazing for a few moments on the ring the prince had placed there, without a word, before any

one could interfere, he drew a dagger from his belt, and stabbed her to the heart. In the wild confusion that followed, he escaped from the castle; and overcome with grief, unable to live without the one he so fondly loved yet ruthlessly murdered, he threw himself into the sea. And now her spirit is seen, always on the anniversary of her wedding-night, her slender form robed in heavy silver brocade, pressing her hands on the wound in her heart, the tears streaming from her eyes; and sometimes before a severe storm, when she makes her appearance in the little tower at the top of the building once used as a light-house. There she burns a light until dawn, for the spirit of her lover at sea."

There are also numerous Indian traditions, one running as follows:—

"There was once but one man and woman on the earth. The man had a large box or chest that he guarded jealously, never opening it. One day, being obliged to make a long journey in company with his sons, and fearing that he might lose the key if he took it with him, for the way was long and rough, he left it with his wife; charging her on no account to open the box, or permit her daughters to do so, for the result to them all would be fatal. She having promised, he set off with a light heart. Having the key in her possession, curiosity gradually overcame the woman's fears; and after a few days she hesitated no longer, but, turning the key in the lock, opened the chest. Immediately out sprang the sun, moon, and stars, and began to circle around in their orbits; so day and night began."

27th. — Went on board the American man-of-war "Adams," under the command of Capt. Merriman. His action with reference to the bombardment of the Indian village near Kilesnoo was criticised as hasty, especially by those ignorant of the Indian character. We inquired into the actual facts.

The old method of harpooning having retreated before the present explosive bomb, seven fishermen near Kilesnoo were carrying on the killing of whales by means of this latest improvement. One day, at the critical moment just as the bomb left the thrower's hand, it accidentally burst, killing an Indian medicine-chief who was rowing; and the Indians, holding council, took two white men prisoners, demanding two hundred blankets as their ransom: the remaining fishermen managed to carry the news of the affair to the man-of-war, being then at Sitka. Capt. Merriman instantly hove anchor, and steamed up; upon which the frightened Indians immediately returned the captives, having refrained from killing them, as they happened to be imperfect, or "*cultus*," one lacking an eye, and the other being lame; the Indians determining that two *perfect* men must die as an atonement for the unfortunate chieftain. Capt. Merriman, in order to prevent any such future outbreak, and as a reprimand for taking the

law into their own hands, in turn demanded four hundred blankets from the tribe, with the alternative, that, in case of the refusal to comply within twenty-four hours, he should open fire on the village. The day wore on, still no sign of compliance. Exactly at the appointed expiration of the time, the guns boomed forth. At the first fire, all the Indians, seizing their possessions, ran into the woods; and after plenty of time had been allowed for their safe departure, the artillery once more raked the shore, ploughing up the banks, and, probably for the first time in their history, these old mountains re-echoed the sound of cannon. Several boats having been run upon the beach, the crew set fire to a few hovels, and then they sailed away.

At first glance, the bombardment and burning of an Indian village by an American man-of-war, when reported East, sounds harsh; but not so to a settler in this far-off possession. The whites have no protection from the United States, — no judges, no marshals, or government, to adjust their claims. Miners' rights have sometimes to be contested with the rifle: murderers and desperadoes have to be hanged by lynch-law. It is impossible for one ship to be at every point along twelve hundred miles of coast at the same time.

From all sources we learned that fear was the

great force that controlled the Indians. Capt. Merriman is respected by both Indians and white men throughout Alaska. The appearance of his ship-of-war at any station is quite sufficient to produce quiet, and the occasional firing of a gun at some mark on the shore recalls to mind the bombardment. The damaged village soon sprang up again, better houses taking the place of the former wretched shanties.

The Alaska Indians are very penurious, and even miserly. They can live on a little dried salmon the year round.

Marked instances occasionally are met with among the missionaries of British Columbia and Alaska, who have had great success among the Indians by honest dealing, understanding the language thoroughly, and then entering upon their Christian labor by first teaching them how to provide for their physical wants.

The collectors try to restrain the sale of rum, whiskey, and other alcoholic drinks ; but through smuggling and other means their introduction is effected. In fact, saloon-keeping at Sitka is by no means the least profitable source of income. Considerable molasses is imported, out of which the Indian makes *hocheenoo*, a very intoxicating drink, the receipt having been brought them by a government marine. They

distil the molasses in a coal-oil can, a dash of petroleum being added ; and a little flour causes the fermentation.

Every silver half-dollar and dollar given to the Indians at Wrangell or Sitka, they soon beat into bracelets, cleverly finishing their work by skilful carvings.

CHAPTER XIX.

KILESNOO. — BARTLETT'S COVE. — PYRAMID HARBOR. —
SALMON-CANNERY.

WE now approached Kilesnoo, the codfish-cannery under Mr. Vanderbilt, to whom, as well as to many others in Alaska, we had letters from the president of the North-west Trading Company.

An Indian, christened Saginaw Jack by Commander Glass, was strutting about the wharf, upon whom various uniforms and letters of introduction had been bestowed by various navy-men. In twelve hours he appeared in three uniforms, — middy's, then captain's, and lastly, as the vessel casts off, he swaggers and rolls round in all the splendor and glittering tinsel of a general in the United-States army. At his request we visited his wife, who, lying on the bed, was groaning from pain caused by inflammation of the feet.

Mr. Vanderbilt told us an amusing incident of the result, in one case, of the effect of attempts to educate the Indians: one fellow no

sooner had received the rudiments of arithmetic than he raised a note of twenty-five cents to two hundred and fifty dollars.

Col. Crittenden, formerly collector of the port at Wrangell, told us an anecdote about the sagacity of some crows, which adds another argument in favor of the reasoning faculties of dumb animals. A quantity of crows having torn in pieces some of his chickens, which he was attempting to raise, he prepared for battle, and on the first charge shot four; on their retiring, flying rather low over his head at intervals, he managed to bring down six more. Then all of them, cawing at their best, held a consultation on a neighboring slope, and flew next time some hundred yards high. Nothing more happened; but next morning every one of his turnips, before unmolested, had been uprooted and picked to pieces, though not eaten. Whether this was accident, I am unable to judge; but I give it as told.

The Vanderbilt cottage was tastefully and picturesquely arranged, a woman's touch being evidently near; while the glowing fire throwing its light over the floor covered with bear-skins, together with the bright cheerful face of our hostess, made us feel nearer civilization than this high latitude would justify.

To give some idea of the lack of fruit, Mrs.

Vanderbilt had not tasted strawberries for six years.

The Indians here, as elsewhere, owned quantities of mongrel dogs, a species of cayote, half wolf and half fox, sharp-snouted, wire-haired, having "a lean and hungry look," though differing from Cassius probably in thinking "too much." The Indians put tin tags round the necks of those dogs they wish unharmed; for many, even on seeing one come near the house, shoot him at sight.

Like the Indians of the plain, these savages enjoy as dainties filthy things too disgusting to mention.

People thought, when Secretary Seward made his purchase of Alaska, that the region would never be more than a land of ice-bound rivers; little realizing that the seal-fisheries alone would pay a six-per-cent interest on the cost.

The Indian women throughout Alaska generally paint their faces black, giving them a hideous aspect, for which many reasons were assigned, but no one in particular above the rest: 1st, on hot days, when fishing on the water, as a preventive against glare, flies, and mosquitoes; 2d, when oil, as a polish, is added, young women adopt it merely for show or ornament; 3d, sign of mourning; 4th, a sign of anger, a caution to their enemies that they had

better take themselves off; 5th, old women adopt it as a concealment of old age.

As these topics of interest were being discussed, supper was announced: when it was finished, and the table cleared, we enjoyed whist until late.

Just before leaving, Mr. Vanderbilt presented us with some pretty specimens of Indian work.

Finally the ship cast off at three A.M. in search of Bartlett's Cove,—as yet not down on the chart,—a newly established salmon-cannery to which we were bringing a cargo of nets, staves, and other commodities.

July 28. — As we reached the deck, our speed being about four or five knots an hour, on our port side lay shoals, reaching far out into the straits. The undulating sands were covered with sea-birds. Gliding on through unknown waters (neither captain nor pilot ever having been there before), the scene was all the more attractive: icebergs, glaciers, whales, porpoises, sea-lions, all gave novelty to the scene. Indians occasionally shot out from the shore in their little canoes; but all attempts at conversation in the Hudson-bay dialect — Chinook — were a failure, none of the dusky islanders understanding a word.

On, on, we sailed; rounding headlands, hugging shores, and casting the lead at frequent

intervals. Once when the leadsman had shouted, "Fourteen fathoms, no bottom!" almost directly we heard the cry, "Four fathoms, bottom!" Immediately the engines were reversed, and we crept on at a slow pace until the dangerous shoal was passed.

Twenty miles having been wandered over, towards afternoon we reached suddenly a *cul-de-sac*, and inquired of an Indian there, who by gestures gave us the information that we were some thirty miles off our course. We then re-sailed our course.

Finally toward evening, after rounding a point, we saw a few white specks in the distance, which the sunlight brought out distinctly; and our glass revealed the longed-for tent. There we found a man, living with an Indian woman, who in this wild land was striking out in the hope of making money by canning salmon. Canoes took off the cargo, shooting to and fro; the colored blankets and barbaric attire of the Indians giving to the scene a wild charm.

I bought a very fine skin of a large black bear which the Indians had killed but a few days before: this, I thought, would make a good sleigh-robe.

The first run of salmon was over; and as the meshes of their nets had been too large, being intended for the Columbia River, the fishermen

waited our arrival for new nets, although the second run has smaller fish.

July 29. — At about three A.M. father awoke me to see the grand glacier which we just then passed: and by the weird light of a nightless day we watched this wonderful frozen river; waterfalls at intervals dashing down the opposite bank, demanding in their turn our admiration.

We reached Pyramid Harbor, — latitude $59^{\circ} 12'$, — where one of the chief canneries of the North-west Trading Company was established under Mr. Karl Spuhn, to whom we had letters.

The ship having to lie over all that day and night, the captain and I shouldered our rifles, and with two dogs, under the guidance of two Indians, — one being a chief of some note, — started up the mountain directly behind the cannery. We had been warned concerning the difficulties to be encountered: the white men telling us that none but Indians had ever reached the top; that they themselves had all tried, but the extreme steepness — the grade being nearly forty-five degrees for four thousand feet — had finally proved too difficult.

The experience gained in parts of Canada, California, and Switzerland, led me to suppose that a mountain only four thousand feet high could hardly be inaccessible. To be sure, the

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ascent was from the water's edge, and not as at Zermatt, Chamonix, and the Engadine, from a base itself already several thousands of feet above the sea-level. There was no evidence of ice, and we could not see any rock ahead above us ; and I thought all would go well.

From our start we thrust our hands in the soil, or clutched at the brush ; most of our way being over low hanging boughs, through springy branches of a small bush from which the Indians make their baskets. Of course our guns added to the difficulty, as they could hardly be used as alpenstocks with any safety.

We had started early in the morning, and all went well for four or five hours. Finally the young spaniel gave up ; and our kind-hearted captain made him lie on his back, and cross his fore-paws like a monkey round his neck. This extra weight added to the slipperiness of the ascent, which was so abrupt and arduous that after five hours the captain gave up, turned about, and began a rather hasty descent : in fact, for several hundred yards I could hear him as he went downwards, occasionally more suddenly than he intended.

Upward, still upward, went the Indians, with that slow, enduring saunter of theirs, which seemed never to tire ; occasionally they would look round, with a sort of pitying expression,

to see how the poor white was progressing. At last we reached snow, over which we passed to the summit. And there spread out before me was a panoramic view of lake and mountain scenery on a scale far surpassing in grandeur any thing I had ever seen. The sudden outburst of splendor was all the more striking from the fact of our course having been through brush. I was hardly prepared for the sudden change. In the foreground, that which I before considered the mainland now changed to islands; beyond lay rivers, snow-mountains, glaciers, waterfalls, the *ensemble* forming a wilderness of solitude which I had not before imagined. We then made a *détour*, shot some grouse and a few ground-hogs, and began our return. It had taken some eight hours to mount: the descent only took two and a half. Reaching the snowbanks, we tobogganed down; and in some places, on account of the grade, we had no difficulty in sliding down over the soil and stones, merely placing our feet together, half sitting down. A root or badly parried limb occasionally sent us sprawling; but I soon got used to it, and became quite an adept at avoiding obstacles. The rain unfortunately fell just as we began to descend, and I reached the ship wet to the skin.

So much for an Alaska mountain. May I be

pardoned for not attempting another, for a Swiss Alp is pleasure compared to the toil of even one of these: to be sure, those in Switzerland are more dangerous.

After inspecting the process of canning salmon, from the time when they are freshly landed from the net, to when they are hermetically sealed in tins, and boiled ready for shipment, we cast off, turned our bow southward, and began our return trip.

Passing down Lynn Channel, we had on our left the colossal "Eagle Glacier," which is laid down upon the government chart as "fully twelve hundred feet high."

In the early morning of the 30th of July we entered Takou Inlet, which the captain kindly went far out of his way to show us. Here are two immense glaciers not far apart. They looked like enormous rivers, whose waters were piled up as in a freshet, congealed into solid ice, and rising several hundred feet above our heads, and running back, as we were assured, some forty miles. The bay was filled with more than a thousand icebergs, making the navigation dangerous, and requiring the steamer to move slowly and cautiously.

Here, for the first time, we saw how icebergs are formed. The great ice-river is in perpetual flow towards the inlet, but imperceptibly to the

sight. As it protrudes over the water, the ice splits off in every imaginable size and form: some of it breaks into small fragments, and a part floats off in huge ice-cliffs on their slow way to the ocean. The varied beauty of their colors is inconceivably charming. Some of them are of uniform deep azure; but more are of purest white, striped in their fretwork with silver and the most delicate cerulean blue: their shapes assume every fantastic appearance, from a camel to a cathedral, from a ship to a fairy palace, and a mountain peak of snow.

I took delight in taking passing shots at some of the more slender tapering minarets of ice, and seeing them reel and come shivering down the side.

Seals timidly came up occasionally, and suspiciously stared at us in wonderment, and then dived under.

Here I could but inwardly exclaim, that any American who wished to sail over the deep and waveless sea, where no sickness from the motion could ever disturb him, where the air was pure and bracing, and the appetite voracious, where the glaciers and the mountains and the lake scenes surpass any thing in Switzerland, and where the midnight sun can be seen at a higher latitude than in Norway, should come to Alaska.

As we moved nearer the north shore, I was startled from my revery by the leadsman's cry, "Four fathom's bottom!" Instantly reversing our engines, we stopped just in time, the screw stirring up the mud as we turned.

After leaving this wonderful inlet, we approached Juneau, the great mining-camp of Alaska. Juneau is also known as Harrisburg of late. Even as we touched the wharf, we noticed something unusual in the scene, — no bustle, no merriment, no noise; all quiet, men pale; even the men who helped tie up refrained from the usual profane small-talk generally adopted on those occasions. A few Indians of both sexes squatted here and there, surly, gloomy, and lowering in aspect. As our eyes wandered along the shore, searching for a cause, there, standing out plainly defined against the dark background, we saw a newly erected gallows under which an Indian's body slowly swayed to and fro.

Col. Barry, officer of the port, and Mr. Koehler, manager of the North-west Trading-store, placed us in possession of the general facts which necessitated the execution of lynch-law.

Dr. McLean, who was present, gave us the following details of the transactions which preceded our arrival: —

"The principal mining-camp is at the basin, about a mile from the town. The two points are connected by a trail which is much frequented by whites and Indians. On the trail are two whiskey-houses, one kept by Richard Rennie, a native of Jersey Island, Eng.; and the other, by a Frenchman named Martin. These saloons are ostensibly to furnish liquors to the miners, but in reality to the Indians.

"About three weeks ago Rennie and Martin got drunk, and during the evening exchanged cabins by mistake; i.e., Rennie going into Martin's cabin, and Martin taking possession of Rennie's cabin.

"During the night an Indian broke into Martin's cabin where Rennie was sleeping, and stole a bottle of whiskey. Rennie got up, and struck the Indian, who then ran away. Early next morning Martin went to the camp with a demijohn of whiskey, and, after giving the Indians a drink, asked them to keep the demijohn for him. He then returned to his own cabin, and found Rennie there. Rennie told him about the Indian stealing the whiskey, and that he had chastised him. Martin told him he had no right to do that, as the whiskey was his [Martin's].

"Rennie then took a bung-starter, and went after the Indians at the camp. While on the

way to the camp, he met two Indians, who assaulted him with a club, breaking his skull. When found he was insensible, and remained in that condition for twenty-four hours, when he expired. From an autopsy made by me, it was clearly shown that he had been struck from behind with a heavy blunt instrument, and the skull badly fractured.

"The two suspected Sitka Indians were arrested; and they confessed to having knocked Rennie down, but accused Rennie of first striking them. I examined the Indians, and found no mark except one several days old. The Indians in their confession admitted that Martin and a Russian named Zackaloff were looking on at the time, but did not attempt to interfere.

"In arresting the two Indians, a third Sitka Indian resisted the arrest; and all three were marched to jail, and ironed, to await the arrival of the mail-steamer. Guards were placed at the jail both day and night.

"One of the day guards, named Dennis, was very careless, and allowed the Indians to roam around the jail-building without having handcuffs on. During his temporary absence outside the building, the Indians took a pistol out of the cupboard. On the return of the guard, and while he was looking out of the window, he was shot in the left hip; the ball coming out

near the floating rib on the right side. Dennis then fired his pistol several times, and alarmed the town. The Indians then ran to the camp, taking the pistol with them.

"The first man to reach the jail was an old American soldier, named Major Givens; and, as soon as he saw the condition of Dennis, he rushed down the hill, and found the Indians in a house, trying to get the shackles off with an axe. He forced open the door, when he was shot through the right lung, and fell to the ground. Another Indian took the axe, and cut his head and face in a terrible manner. Two of the Indians then put for the woods, the one shackled remaining in the house.

"One of the retreating Indians was shot dead by some infuriate citizens, and the other got away. The one remaining in the house was arrested, tried by a jury of citizens, found guilty, and hung this morning as you were entering the harbor."

The corpse was soon cut down. As we stood on the deck, a little funeral-procession wound up the hill, carrying the body of Major Givens, whom the Indians had murdered. A mournful sight it was, to see a funeral in this far-away land, the sadness and dreariness being heightened by the dull gray sky, drizzling rain, and discordant tolling of the little church-bell.

Slowly the procession passed out of sight, and soon was lost behind the great crags.

Father and I entered the house where they were mourning over the body of the young Indian who had been hung that morning. All the women were wailing and weeping, while the sister of the dead man fixedly gazed on her brother's body laid out in white; the long sheet being pulled up close round his neck to hide the scar of the rope, and a pink silk handkerchief covering his head. On uncovering, the face seemed peaceful, the only expression of pain being the tight compression of the lips. The scene was full of sorrow; and I shall not soon forget the sad, wan look of that sister keeping vigil at the head of the dead.

Passing on, we glanced at the room where the guard Dennis lay dying; and we were both right glad to leave this scene of lamentation, and return to the ship.

Finding we could not sail for three hours, I went again to the North-west Store, where Mr. Koehler gave me a pretty specimen of Indian basket-work.

Mr. Spuhn had the day before presented to my father an enchanter's mantle, lavishly woven by hand, curiously wrought in devices; each sign or mark representing some monster or spirit which the sorcerer's power was supposed to conjure up.

While we were watching the Indians making their crafty bargains, — exchanging their little heaps of gold-dust or hides, for cotton and wool goods, trinkets, ribbons, tobacco, or powder, — suddenly there arose cries and yells of “Indians are coming!” Hurried mysterious mutterings were heard from the red men, and as if by magic the store was empty. Drawing my revolver, I rushed out; and from every direction the miners were coming, each little log hut yielding up its owner armed with an old Hudson-bay gun or Winchester. In a few moments all the men who possessed guns were mustered in the little open street, numbering all told some twenty-six; while others who possessed revolvers also joined in with the rest. On the side of the hill towards the mining-camp we could see a mass of men advancing in straggling lines, and from the numbers we concluded that the fight would be a bloody one.

The camp happened just then to be short of ammunition, and for the Hudson-bay guns only sixty rounds remained: bayonets had been served out with the rifles, which when at close quarters would probably prove useful. The hostile band were supposed to be the Sitka tribe coming to avenge the death of their two members, and as they drew near the flash of guns could distinctly be seen. Knowing that

the trading-store would probably be the greatest resort for plunder, we began to barricade; and rushing up-stairs, I secured an old Winchester with twenty-four rounds. This, added to the six bullets in my revolver, was all we three possessed; but, as the staircase was very narrow, we made up our minds to shoot from the window until the barricades had been forced, and then fight on the staircase until help arrived, either from the ship half a mile off, or from those who would fight, guerrilla-like, from behind the huts.

Just as we were expecting to hear the ping of a bullet, an Indian came forward, and explained that they had captured the third murderer, and were bringing him to justice. Instead of being hostile to us, they were friendly, and at enmity with the Sitkas.

A great load of anxiety was lifted from all, although I confess that the prospect of an Indian fight had been exhilarating.

And now came out those traits which stigmatize lynch-law so forcibly. "Run him out!" "Let's have a shot at him!" and other such exclamations, seemed for an instant to be gaining favor. But finally soberer sentiments prevailed; and he was taken off to the meeting-house, while several went down to the ship to prevail on my father to come up and see if he

could not prevent an execution in mad haste, without proper investigation. Father, the captain, and I then hurried up to the scene; not a moment too soon, for already the Indian had been adjudged guilty, and the procession to the scaffold was on its way with the prisoner.

My father interrupted the march, and demanded an interview with the leader of the band of armed men. The leader, a resolute man with an honest face, came forward; and my father told him that he had interrupted the execution lest the miners should do a rash act, under excitement, which they might forever regret, and claimed to know upon what evidence they were about to take a human life.

The man replied that this Indian had killed Major Givens with an axe while in the performance of his duty.

"Who saw him strike Major Givens with the axe?" said my father.

"The doctor," was the reply.

"Where is the doctor?"

"He has gone to the camp to attend a person."

"Who else saw the blow struck?"

"The chief," was the reply.

"Where is the chief?"

"There," pointing to an Indian not far away.

"Bring him here with an interpreter," said

my father, who then carefully examined him; and the chief admitted all that was charged against the prisoner, and said that he saw the blow struck which killed Major Givens. Other witnesses testified to the same.

Mr. Fuller (I think that was the leader's name) then said, "We have no court, no judge, no marshal, here. The government gives us no protection, and we are obliged to protect ourselves. We are daily exposed on our way to and return from the mining-camp; and we must punish the murderers of our comrades, or be ourselves murdered." He seemed a sober, serious, brave man, and said he was from Massachusetts.

Then the white men who were armed with rifles, about twenty-seven in all, formed around the gallows to prevent a rescue by the hostile Indians who were near.

The prisoner mounted the scaffold with undaunted air, and stood under the cross-beam from which hung the fatal rope. His hands were tied, and the noose placed around his neck. He repeated the Lord's Prayer in pretty good English. It seemed a strange coincidence, that the three murderers were all Christians, converted by the faithful missionaries, as we were told. After saying, "Good-by Indians, good-by white men," a red silk handkerchief,

presented by an Indian woman, was passed up on the point of a bayonet, and tied over his eyes.

A long rope ran from the stud which supported the plank upon which the Indian stood; and the leader of the band of miners, amid the most impressive silence, said in a loud, clear voice of stern command, "Let every miner in this camp bear a hand to the rope, and take his share in the responsibilities of this hour!"

The order was obeyed. A jerk of the rope — the plank fell, and the murderer's neck was instantly broken by his fall.

We moved away in silence, and went sadly back to the steamer; and, as we left this place of violence and lawless death, we felt that our government had neglected its duty in failing to organize a Christian rule over this wild territory which we had purchased.

As we slowly steamed away in the dusky afternoon, we looked back from the deck; and on the gallows of new wood, standing out against the dark background, we saw the swinging body of the dead, and heard only the lapping of the wavelets on the beach, and the requiem-dirge of the moaning winds along the mountains.

July 31. — On our way back to Fort Wrangell, where we intended to take the mails on

board, we went outside, and experienced quite a swell. Passing through a channel, we touched bottom: the ship reeled, but recovered herself, the speed of eleven knots carrying her over the shoal in safety. There was no sign on the chart accounting for it.

At Wrangell we took on board an interesting fur-trader, named Sylvester, on his way to Victoria, where he hoped to dispose of his annual supply of two thousand pelts.

Aug. 1. — About noon we changed salutes with the English man-of-war the "Mutine," on its way to Sitka, having Admiral and Mrs. Lyons on board.

Aug. 2. — Weather not quite so propitious. Somewhat rough on Queen Charlotte's Sound. Mr. Sylvester, the fur-trader, on my father's remarking that the scenery we were just then passing was very grand, replied, "Yes; but I guess I'd rather see a haycock."

Mr. Sylvester was bred in Maine, and had long been an express-carrier in Washington Territory, and slept night after night on the snow upon evergreen boughs, and endured countless dangers from wild beasts and wild men, and was rather tired of mountain scenery. Parting with the fur-trader, he presented to me a fine specimen of red-fox skin.

CHAPTER XX.

CLIMATE. — SOIL. — PRODUCTS OF ALASKA. — BACK
TO VICTORIA.

WE reached Victoria, on our return voyage, the 4th of August. Capt. Carroll courteously took us from Nanaimo in the steamer "Idaho," and thus facilitated our homeward journey. At Nanaimo we parted with the steamer "Eureka," in which we had passed so many interesting and happy days. To Capt. Hunter, from whom we received every possible kindness and delicate attention, we are deeply indebted. A more watchful and careful officer never commanded a ship in the dangerous and almost unknown waters of Alaska. I gave him my revolver at parting, and hope that any of my friends who hereafter visit that far-off country may sail under the care of Capt. Hunter.

The second engineer presented me with a huge walrus-tusk, of solid ivory, which I much value. The first engineer was a man of rare intelligence.

In a country so vast in extent as Alaska,

there is great diversity of climate, soil, and temperature. The south line of the mainland is $54^{\circ} 40'$ north latitude, and the north cape of the territory runs into the Polar Sea, $71^{\circ} 13'$, — beyond the farthest land of Norway. No one has need to cross the Atlantic to reach a land of the "midnight sun."

The climate of the Aleutian Islands is tempered by the Pacific Ocean, and the Japan currents modify the cold in many parts of Alaska. At Sitka (lat. $57^{\circ} 3'$) the mean temperature is 44° Fahrenheit. The climate of Southern Alaska is about the same as that of Kentucky.

The Alaskan range contains the highest peaks in the United States, — Mount St. Elias 19,500 feet, Mount Cook 16,000, Mount Crillon 15,900, Mount Fairweather 15,500. These measurements from the government surveys are supposed to be thoroughly reliable. And the Yukon River is one of the largest in the world.

At Fort Wrangell, Sitka, and many other places, we saw the Kentucky blue-grass, red-top, white clover, timothy, and other grasses of rankest growth. We saw currants, cranberries, raspberries, dewberries, and salmonberries in large abundance. The salmonberries were like the blackberry in form and size, but of a

t salmon-color. We purchased a quantity of the berries from the squaws for about them all watery and destitute of any richness of flavor; and even after we had them made into a pie at the steamer, we could not eat them with any relish. Potatoes grow well; but in South-eastern Alaska there is but little arable land, and such a thing as a plough we did not see, and no evidence that one had ever been there.

We passed marble mountains much larger than those of Carrara.

The wealth of Alaska is chiefly in its furs, timber, mines, and fisheries, which latter are far beyond any thing on the globe. The chain of Pacific islands, which run almost to Asia, are said to be excellent for raising cattle.

The valuable timber of Alaska is inexhaustible. The red and yellow fir abound; and the Alaska cedar, of a bright amber yellow, capable of a very high polish, beautiful to the eye and exceedingly fragrant, is one of the most useful of woods.

A report upon "Ship-building on the Pacific Coast," made to the Board of Marine Underwriters of San Francisco in 1867, by the surveyor of the Board, says, —

"The yellow cedar is undoubtedly the most valuable of all our trees for ship-building. It is found in

great quantities at Coos Bay, thence along the coast of Oregon to Port Orford ; also on the islands and mainland of Alaska. The Indians of Alaska have for ages used its trunk for their canoes. A vessel built of it at Sitka thirty years ago was recently examined, five years after she was wrecked, by the officers of the revenue steamer 'Lincoln.' The timbers appeared as sound and perfect as on the day she was launched. This cedar is much finer-grained, handsomer, more dense, and a better timber in all respects, than any other cedar known. It grows to a height of one hundred and seventy-five feet, with a diameter of four feet. It is probably the finest material for docks in the world. At Coos Bay, Mr. A. M. Simpson informs us, there are inexhaustible quantities of this cedar, which has been used to some extent in the construction of the bark 'Melancthon.' After fifteen years' use in the frame of his saw-mill, it shows no signs of decay. Mr. Simpson expresses the confident opinion, that heart cedar, cut from the lower part of this tree, will outlast teak in any part of a ship's frame."

When a government shall have been established over Alaska, under which civilized men can be protected in their rights, the resources will rapidly develop, and Alaska will become one of the richest jewels in the crown of our empire, and bring to Mr. Seward all the renown which he anticipated, and cause lasting vexation to our people that James Buchanan did not insist upon 54° 40' as our northern boundary.

Returning from Alaska, we stopped again at Victoria, and there met a sea-captain who had formerly commanded a vessel sailing between San Francisco and China. He pointed out the superior advantages which Great Britain will have in commerce with the Orient so soon as the Canada Pacific Railway reaches Port Moody on the Pacific waters which separate Vancouver's Island from the mainland. He said, —

"The route for steamers from San Francisco to Japan and China is up the Pacific coast as far as the north end of Vancouver's Island, and thence westward, in order to avail of the short degrees of longitude. The northing thus made is nearly nine hundred miles. Vessels coming to our coast from Asia make the entrance into Puget Sound from three to seven days before they get off the Gate into San Francisco Bay."

Maury, whose authority will not be questioned, writes : —

"The trade-winds place Vancouver's Island on the wayside of the road from China and Japan to San Francisco so completely that a trading-vessel under canvas to the latter place would take the same route as if she were bound for Vancouver's Island. So that all return cargoes would naturally come there, in order to save two or three weeks, besides risk and expense."

The temperature of this island is nearly that

of Virginia; and Victoria, which is in latitude $48^{\circ} 25\frac{1}{2}'$ (Paris being in latitude $48^{\circ} 50'$), is quite as mild as the city of New York.

A few years ago it was "proved" that Canada could not build a railroad to the Pacific, just as Dr. Lardner "demonstrated" that steamships could never navigate the ocean with success. But the day is near when the Canada railway will bring passengers from Quebec to Port Moody, and when British ships will take away our chiefest trade with the two great empires across the Pacific. Then will the American people begin to realize the stupendous folly of the Buchanan-Pakenham treaty of 1846, by which we gave away an empire, and perilled the richest commerce of the world.

CHAPTER XXI.

BACK TO VICTORIA.—FROM VICTORIA TO PORTLAND.—THE FOREST FIRES.

ON the 6th of August we left Victoria, on our way back through the beautiful waters of Puget Sound.

In the evening we reached Tacoma, where at the hotel we saw a little black-bear cub, lately caught, only five months old, have a fight with a large pointer; and, contrary to my expectations, the dog turned tail.

The next day we reached Portland at 5.30 P.M., where we were delighted by the comfortable house and hospitable kindness of Mr. and Mrs. Schultze. Smoke from the forest fires still overhangs the city.

CHAPTER XXII.

FROM PORTLAND ALONG THE COLUMBIA RIVER.
—THE CASCADES.—THE DALLES.—THE CLIFFS.—
THE NORTHERN PACIFIC ROAD TO BOZEMAN.

ON Thursday, Aug. 9, we left Portland by the Oregon Railway and Navigation Company line, in company with Mr. Paul Schultze, for the Yellowstone Park by the way of the Northern Pacific road.

Wallula, where the Oregon Railway and Navigation Company's road joins the Northern Pacific, is three hundred and fourteen miles from Portland. The road runs along the southern bank of the great Columbia River, through some of the grandest scenery of the globe. The mountains look like towers, fortresses, cathedrals, made by giant hands, — weird, fantastic structures, resembling Doré's baseless castles. These begin about forty-two miles from Portland.

The cascades are a few miles farther on ; and the rapids, called the Dalles, are some forty miles east of the cascades. Here the shores

of the great river are treeless and barren ; and the banks are heaped with fine sea-sand like the ocean, and present a very singular appearance.

The difference between high and low water caused by the freshets at the Dalles is eighty feet. Here the vast river, which in many places near its mouth is more than five miles wide, rushes through a gorge only one hundred and twenty feet in width, while the depth is enormous.

We pass the salmon-wheels and Chinese camps of the road-workers. At the Dalles, Indians were catching salmon by dipping them out with hand-nets.

Now we are passing through miles of scoriæ, a black volcanic composition, and not a single tree in sight.

The engineer told me that the hewn ties lasted much longer than the sawn ones, as the jarring of the wood fibres of the hewn was less.

Along the Snake River were fine lands. Went through Flathead reservations.

Passing through Idaho and Montana, we met forest fires on all sides. Crossed over the highest trestle-bridge in America, two hundred and twenty-six feet, and I believe the highest in the world next to the noted Freiburg bridge.

All along the road we found a company of

United-States troops encamped, who had been called in to quell a slight rising of the Indians, who had robbed a man.

Seeing a new grave with a crutch planted over it in place of a tombstone, inquired the cause, and found that a lame man who had repeatedly robbed the Wells Fargo coach was finally captured and lynched; and this was placed over to mark the spot where Lame Joe met his death.

At Ainsworth, fourteen miles above Wallula, the great Snake River enters the Columbia. There the railroad leaves the river, and runs north-east to the Spokane Falls, which are 374 miles from Portland; thence to Clark's Fork of the Columbia, 471 miles from Portland, to Lake Pend d'Oreille; thence along Clark's Fork south-east to Missoula, from Portland 633 miles, which we reached Aug. 10, in the afternoon, where we remained all night in the cars.

We went to the hotel for supper, and there took breakfast the next morning.

We found at the hotel a peculiar style of conversation, as we waited for supper on the piazza of the house. A good many were standing around, waiting for the meal, who seemed to be residents. One comes up to another, and says, —

“What do you know?”

The one addressed replies, "Know that you are a damned fool," which is taken in good-nature.

After supper one comes out of the dining-room, picking his teeth with his fingers, and another says to him, —

"Been filling up, hain't you? What did you git?"

"Fried grubs," was the reply.

"Any rotten eggs?" says the other.

"Yes, and a dead chicken," was the retort.

"Wouldn't eat a live one, would you?" was the rejoinder.

The road being unfinished, at this point we took carriages, and began our sixty-five-mile drive over the rolling country of Montana. At Hawk's Ranch we changed horses, and continued our journey to Kean's.

Our driver was totally ignorant of the way; which, added to the startling news that a stage-robbery had occurred on this same road but a week before, quite kept us alive to the beauty and novelty of the situation. Mr. Schultze's endeavor to make the drive of ninety-five miles in a day and a half instead of two days and a half, by making a short cut, placed the driver in the predicament of handling four horses over ground with which he was totally unfamiliar. Wading rivers, ploughing our way through

bogs, crossing the unfinished track many times, compelled us, in order to avoid an upset, to attach a rope to the top of the coach, and required all to hold on while going down a bad grade; I generally also standing on the brake. The brake finally broke, and it had to be mended with ropes. At last we saw through the darkness some twinkling lights, which proved to be from the camp-fires of the track-workers, one of whom kindly guided us until we reached Kean's, an eating-house where the stages going the regular route usually halt for lunch. The little tavern was full; and we slept on the floor, there being but one bed, and that was given to my father.

In the early morning the landlord came into the room, and asked us for "bitters," which meant whiskey. Mr. Moore, a fellow-traveller, had a flask, and supplied the pressing wants of our host.

At eight A.M. we started to go across the "Rockies," a distance of some thirty miles, to Helena, the capital of Montana. Fearful roads, rocks, jolts, bogs, ruts, upheavals, and crashes of every thing; to say nothing of one hill, the descent of which was actually so steep that we all had to get off in order to lessen the momentum. We saw on this day's drive no game, and but few birds. Soil seemed poorer east of the Rockies than west.

On the morning of the 7th the mine was sprung which broke apart the remaining partition of earth and clay and rock, one hundred and twelve feet thick, in the famed Mullen Tunnel. The Atlantic and Pacific met, and the workers from the East hailed their Western friends. This reminded me of the St. Gothard tunnel, which so closely binds France, Switzerland, and Italy, making a direct communication.

We reached Helena on Sunday, the 12th of August, at mid-day, and learned that the mail-coach had been stopped by robbers (or by road-agents, as the phrase is), and the mail and every passenger robbed.

Helena is a great mining-town. To-day being Sunday, all things are in uproar. Every other house on the main street is a gambling-house, saloon, or house of ill-fame. All places are open, and faro is at its height. In one den I saw a very exciting game of poker, the "pile" in the centre of the table sometimes amounting to a thousand dollars. The saloons in full sway were rendered attractive and alluring in every conceivable manner; resembling in this respect, though from a much lower standpoint, Homberg, Baden-Baden, and Weisbaden, in the by-gone days of the Golden Coursal or the present Monte Carlo.

Returning up the main street later on, I

witnessed a pretty good stand-up fight over some cards.

I saw rather a curious way of covering the sale of whiskey under the garb of religion. Observing a saloon from which numerous miners were issuing, more or less in a state of inebriation, I entered, and found a large organ placed in one corner, and the miners fast getting drunk to the strains of "Onward, Christian soldiers."

We met Col. Saunders, leader of the old Montana Vigilants, who took us to the First National Bank, where we saw some large nuggets of native gold, one assayed and stamped \$420, another \$250, also one at \$325; the last one shown weighing 47.70 ounces, being valued at \$945.

CHAPTER XXIII.

BOZEMAN.

Aug. 13. — Started by rail, at five A.M., for Bozeman. Met Mr. Eldridge on the train, engineer of the Northern Pacific Railroad for the Rocky-Mountain District. He was most kind in his attentions, and his care in helping us to arrange our outfit will always be remembered.

Through a letter of Gen. Sherman to Major Gordon at Fort Ellis, we were provided with an ambulance and four mules, and an "A" tent, which, added to a light Studebaker escort-wagon for provisions, three ponies, and the other necessities for a camping-tour, completed our outfit. A driver from the fort for the ambulance, a sergeant, my own man Murray for the escort-wagon, and Wyatt, an old hunter, who afterwards joined me with his three ponies, made up the party.

On the way to Fort Ellis, we drove through thousands of gopher-holes. These little animals, resembling rats with the addition of a

bushy tail, sat on the edge of their subterranean passages, very much like the prairie-dog ; their movements when startled being marvellously quick. In Florida the gopher is a kind of land-turtle, the holes caused by them being much more dangerous for horses.

Ladies' society was quite limited at the fort ; and yet those we found, like true Americans, made the best of every thing, and even attempted to speak cheerfully of the long, cold, dreary winters, which must be very tedious.

The ladies, officers, Mr. Eldridge, and my father all went to hear Henry Ward Beecher lecture in the evening. His subject was "The Reign of the Common People." Men in every kind of dress, and women with crying babies in their arms, crowded to hear him ; and all were eager listeners except the babies, who were eager squallers. When Mr. Beecher attacked with sarcastic ridicule the old theology, he was loudly applauded. The stillness of the crowded room was frequently interrupted by great outbursts of yelling, proceeding from one or more animate objects held in the arms, called babies. The nightly revelry of cats was slight compared with the vociferous powers of these funny embryo specimens of humanity. Finally, as a mother rose to go out with her infant, Mr. Beecher paused, and, as the precious charge

was rapidly disappearing, remarked, "There lies the basis for a future public speaker."

Aug. 15. — Provisions, buffalo-robos, guns, fishing-rods, cooking-utensils, blankets, all being packed, we bade good-by to Mr. Eldridge, exchanged farewells with our kind friends at Fort Ellis, and started.

My little sorrel pony went grandly. I had put a double Mexican *cinche* on him, snaffle-bit, and single saddle-blanket, and began to feel that I had made a good purchase. He was a three-quarters-bred Oregon horse and, though not quite broken, I felt his speed and endurance were good; a look at his deep chest, small ears, slim, tapering limbs, and muscular shoulders, showing good running-blood. He was the only Western pony, among the dozens that I have ridden, which came up to my boyhood ideal "wild mustang;" for, as a rule, for ugliness in shape, size, color, and temper, give me the *broncho*, though for roping cattle, endurance, and ability to stand exposure, they are unequalled.

To-day we travelled twenty-one miles, and pitched camp at Trail Creek in the pleasant society of Dr. Bushnell, his wife and baby, Mrs. Bushnell's sister, and Miss Bingham, all from Fort Ellis.

Let me devote a line to the baby. I am not

generally favorably disposed toward babies ; but to my certain knowledge, during the fourteen days that we camped out in the party, I can at present remember no instance of that child yelling, — a feat which I can safely dismiss with the refrain “Extraordinary !” Whether this remarkable phenomenon arose from knowing when the exact moment had arrived for placing the rubber tube connecting with the well-known bottle between its lips, I am unable to judge ; but, be it as it may, that baby never bawled once, although this was its first experience in “roughing it.”

I unfortunately found to-day that my sorrel understood the art called “bucking.” I had been warned, before starting, concerning this peculiarity, but never dreamed of its actually ever taking place. To those accustomed to their park nags or beautifully trained hunters, the “buck” is naturally unknown, as it is a vice peculiar to the western *broncho* or *cayuse*. If any of my readers can imagine the sensation of suddenly (when his thoughts are far away) feeling his horse curl its head and tail under its legs, bow its back, shoot up in the air like a catapult, and come down stiff-legged, let him condole with me. I had had it tried on me to some slight extent in California, but never in the “thoroughbred” manner. It is all well

enough for the Mexican "*buckquero* riders," the professional Western horse-breakers, to say, "Throw your feet forward, sit way back, and give yourself up to the recoil." I tried: the pony saved me all trouble in the way of giving up to the recoil, for at the fourth buck no dynamite ever sent up a corporeal body more swiftly than mine went from that saddle. Somewhat dazed, I recaught the brute, got on, and for the rest of the day got off without his agency.

Catching a few fish while the men built a fire, pitched a tent, ground the coffee, and baked the bread, we soon gathered round for supper; and, after writing as long as the dying light would permit, we all turned in, and our first night's camp-life began in earnest.

My three ponies broke their picket-ropes this morning, and were found by the driver, who gave chase on mule-back three miles to the northward.

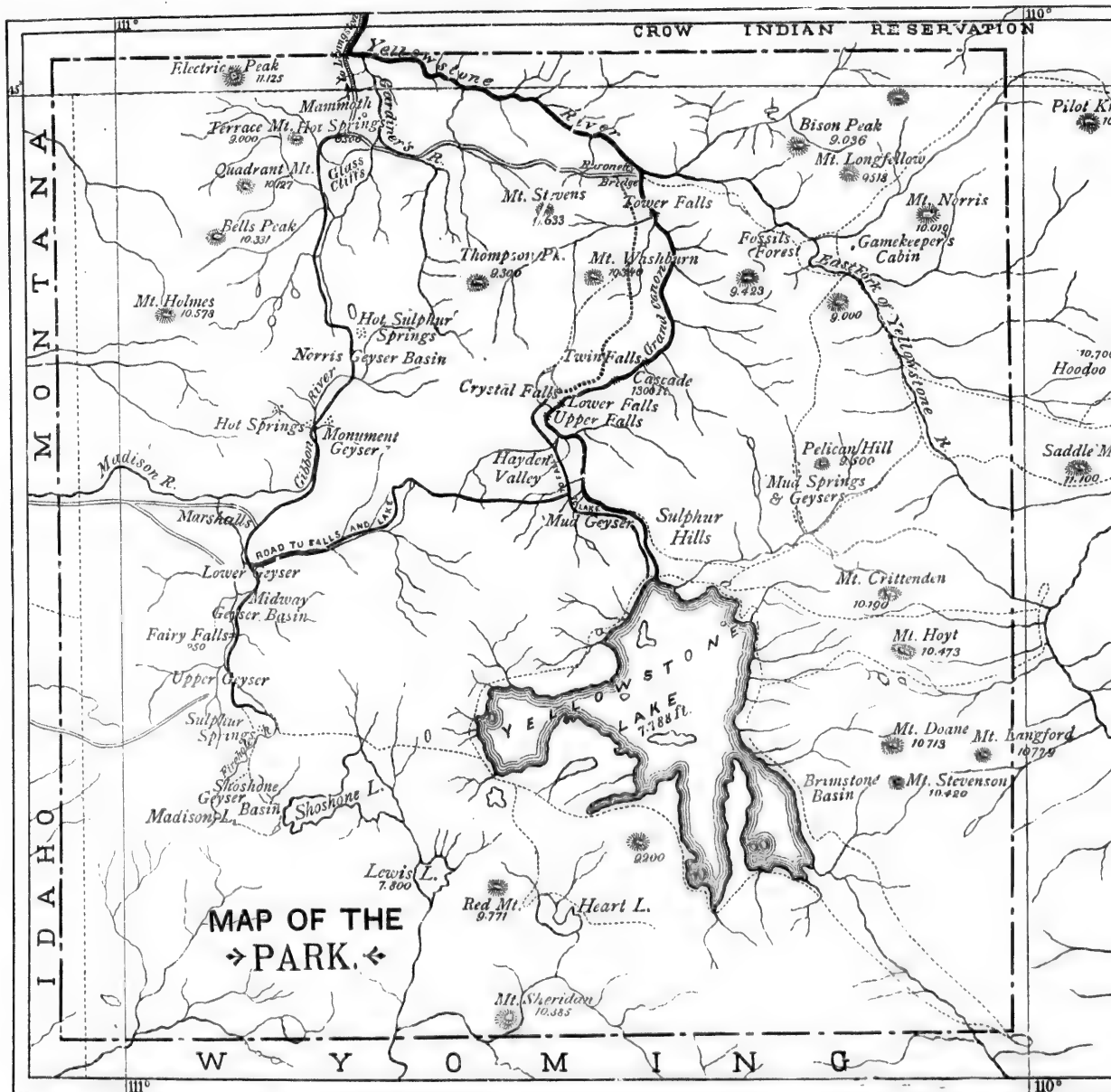
The nights grew cold very soon after sundown, quite an extreme after the fierce heat of Monday. We made a thirty-five-mile drive to-day, and before sundown enjoyed some fair trout-fishing in the Yellowstone River.

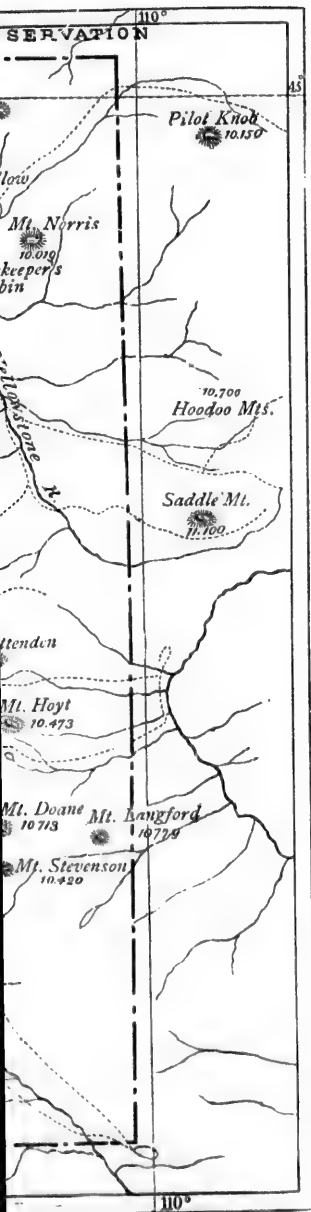
I was twice bucked off this afternoon; the last time coming very near being killed, hurled as I was clear over the pony's head, and landing

a few inches from a huge boulder. I found, on remounting, that the last jolt had quite disabled me, my hip and left shoulder being very lame; so that after riding a little farther I was obliged to get into the ambulance. The next day I tried him once more: but, as he could not stand a gun on his back, we used him as a pack-horse for the rest of the trip; and, during my hunt in the Hoodoo Mountains, I rode two well-broken old *cayuses*, which would stand any thing, from the firing of a gun to an avalanche.

We saw a large number of hawks near the encampment, and at night the full moon brought out clearly several owls seeking for prey.

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CHAPTER XXIV.

YELLOWSTONE PARK.

Aug. 17. — Hard day's drive, steep hills. Arrived at Mammoth Hot Springs Hotel, which was still in a very unfinished state. Eatables of the house were nearly all consumed, not enough allowance having been made for the large concourse of transient visitors. Senators Cameron, Logan, and Dawes were there, having just returned from a flying trip through the park.

We were prevailed upon to sleep at the hotel instead of our tent, and were given a large room called the Tower Chamber, finding a bed quite a luxury after the hard ground. This hotel, which we reached in the afternoon of the 17th, is at the north end of the Yellowstone Park.

We camped out in the government enclosure, near the hotel, intending to start the next morning for the tour of the park.

We had ten horses in camp, but the next morning my fine saddle-horse was gone. We

supposed that he had been stolen. Search was made by three of our men in every direction, but without success. Towards evening I was told by Mr. Hobart of the hotel that he thought we had been "cashed;" that meant, as he told us, that the horse had been secreted for the purpose of theft or reward. A German at the hotel told my father that he thought the horse could be found. My father replied, "Bring me the horse before dark, and I will give you ten dollars." The man mounted a mustang, and in thirty minutes the horse was delivered. We had no more trouble about our horses; but towards the end of the season horse-thieves made a raid upon the park, and several tourists had their horses stolen when far away from any assistance, and suffered much in consequence. These difficulties will cease, under the good management of the Park Improvement Company, by another season.

THE YELLOWSTONE PARK.

This land of natural wonders lies in the Rocky Mountains, at the north-west corner of Wyoming, embracing a narrow strip of Idaho and Montana on the west, and a small portion from the territory of Montana on the north. Its boundaries are rectangular, and by the Act of Congress passed in 1872 are thus defined:—

"Commencing at the junction of Gardiner River with the Yellowstone River, and running east to the meridian passing ten miles to the eastward of the most eastern point of Yellowstone Lake; thence south along the said meridian to the parallel of latitude passing ten miles south of the most southern point of Yellowstone Lake; thence west along said parallel to the meridian passing fifteen miles west of the most western point of Madison Lake; thence north along said meridian to the latitude of the junction of the Yellowstone and Gardiner Rivers; thence east to the place of beginning."

Since no accurate survey has yet been made, neither the exact size, nor the latitude or longitude, is known. It is supposed to be at least sixty-five miles from north to south, and fifty-five miles from east to west; but the superintendent told us that he was quite sure that this was an under-estimate. The south line is believed to be about 44° north latitude, and the east line about 110° west longitude. New-York City is $40^{\circ} 42'$ north latitude, and 74° west longitude.

It is worthy of note, that the Yellowstone Lake itself is at an elevation of 7,780 feet, and that the park contains two mountains each near eleven thousand feet, and three more are each about ten thousand feet, besides twenty-five others which are quite high. Many of these mountains bear personal names: thus

Mount Washburn was named after Gen. Washburn; Dunraven, after Lord Dunraven; Mount Everts, after Mr. Everts, a member of a party under the leadership of Gen. Washburn in 1870, formed to explore the Yellowstone River. While near the head of the lake, Mr. Everts became lost; and, suffering untold hardships from hunger and cold he became insane, and was found wandering near the Mammoth Springs.

So early as the expedition of Lewis and Clark across the continent in 1803 or 1804, a trapper named Colter, who accompanied that celebrated exploration, having left the company, was captured by Blackfeet Indians, from whom he escaped. In his wanderings he saw the boiling springs and some of the geysers; and as early as 1810 he was in Missouri, relating marvellous tales of lakes burning with brimstone, of pits of fire, and spouting hot water. His stories were treated as the inventions of a brain driven to lunacy by suffering; but a party under Capt. Lacy visited the Lower Geyser Basin in 1863, and gave the first credited information of its marvels. In 1871 Professor Hayden made an extended tour through this region, and in 1872 presented a proposition to Congress to reserve a section of the territory as a national park.

DISTANCES.

I found it difficult to obtain trustworthy information as to distances in the park. Between the same points, one driver, familiar with the road, would give the distance as thirty miles, while another equally well acquainted would call the distance forty-five miles; and not infrequently, the nearer we drew towards our point of destination, the greater the distance would be, according to the information given by those we met. I attribute this partly to the execrable condition of the roads. I give the distances from the most reliable sources within my reach: they will be found proximately correct.

The great Northern Pacific road runs parallel with the north line of the park, fifty-eight miles distant. A branch of that road runs from Livingston, fifty-six miles, to within two miles of the park; whence stages carry passengers six miles to the National Mammoth Springs Hotel, which is four miles south of the north line of the park.

From Livingston the road runs south along the valley of the Yellowstone, through mountain scenery, and cañons of the river, magnificent and wild.

At the north line of the park, where the

Gardiner River enters the Yellowstone, the course of the Gardiner is from south to north. The Yellowstone, rising in the Yellowstone Lake near the south side of the park, runs with many windings northerly until near Livingston, when it turns east. Through its valley the Northern Pacific is for many miles built.

Entering the park from the north, the first thing which surprises the visitor on reaching the National Hotel is the great terrace of

THE MAMMOTH HOT SPRINGS.

The terrace rises a thousand feet above the Gardiner River, which runs near, and two hundred feet above the plateau of the valley in which it is built by the ceaseless flow of the hot springs, which leave a calcareous deposit. This deposit covers an area of three square miles, and the recent deposits on which the hot springs are now boiling occupy about a hundred and seventy acres. Terrace after terrace, mostly white as chalk, composed chiefly of lime, soda, silica, and magnesia, rise from the level upon which the great hotel stands, to the height of two hundred feet.

Considering the superb mountain views seen from this place, taken in connection with the strange appearances of the cones and terraces constructed by the flow of the smoking springs,

there is no one place in the park more interesting and wonderful than the Mammoth Springs. They are seldom seen as they ought to be. When people arrive here, they are tired; and when they return from the tour of the park, they are more tired. The great boiling springs on the terraces can be seen only through a somewhat difficult walk, as no horse can pass over them. Their vastness and variety cannot be appreciated at all without walking over and around them.

The wonderful formations are in strange artistic shapes, made by magnesia, soda, lime, sulphur, and probably silica, held in solution by the hot water, which, flowing over, slowly hardens much as water congeals when passing over a surface in an atmosphere below the freezing point. Indeed, no one can walk around any of the geysers or hot springs in the park without being reminded of ice-formations which he has seen at waterfalls in winter.

The bewildering views from the hills, the cañons of the Gardiner River, — appearing to be only a few rods from the hotel, but when reached are found to be nearly two miles away, and the return seems more than two miles; the boiling springs by the river-side in which the fishermen boil trout on the hook, which they have caught in the cold stream within reach;

the deep caves on the hotel plateau, left entirely open (about which I heard an Irishman, last Sunday, mournfully say to his companion, "What a shame that these holes are not covered up! A man cannot get tight without falling in, and that would be the last of him;" and he reeled indignantly away),—these all combined gave this section of the park many varied attractions.

To make a tour of the park as it should be made, and return to the hotel at the Hot Springs, requires a journey of two hundred miles, over the roughest, hilliest, steepest, stoniest, stumpiest, joltiest, dustiest roads that wheels drawn by horses ever passed; many parts of the roads being built of round logs, which give variety to the violence of jolting.

Except for the Grand Hotel at the Hot Springs, there are no hotels in the park, unless the small building near the Firehole River, called "Marshall's," can be called a hotel. There are tents stationed in various places where tourists are supposed to be able to sleep (but they tell me that they can't).

Three persons, making a tour of the park, need a covered wagon with driver and four mules, an escort-wagon with driver and two horses, an extra horse and saddle, and a third man to cook, and aid in pitching and striking

the tents. As all the bedding, food, and cooking-utensils must be carried along, the loads are heavy; and the roads are such that you cannot drive many miles in a day, and ten days are needed for the trip. Of course this is expensive; but it is the only way, at present, to see the park with any satisfaction. To see it with any degree of comfort, in the present state of the roads, is impossible, unless you ride on horseback in a hot sun, and have an escort of many pack-mules; but it is worth seeing at almost any cost or discomfort.

I made the tour on horseback, and rather enjoyed it. But my father and companions were in a government-wagon; and the complaints of each and all who were driven in any kind of vehicle were universal. The excessive alkaline dust, so irritating to the eyes and throat, and parching to the lips and face, was exceedingly uncomfortable; and tenting out is, at best, a nuisance. The sun was intensely hot, and the atmosphere as arid as an African desert. So soon as the sun sets, it grows cool; and nearly every night the water in the buckets at the door of our tents was frozen from an eighth to a quarter of an inch in thickness.

Next year, I dare say, there will be large improvements. Mr. Rufus Hatch of New York, president of the Park Improvement Company,

has excellent plans, which he will be likely to carry out, and which if carried out will make a visit to the park more easy and agreeable. Mr. Hatch has been at the park this season, in charge of a party of some eighty persons of different sexes, ages, nations, and tongues; and his consummate tact and quiet diplomacy have kept them all in apparent good-humor. We are greatly indebted to Mr. Hatch for many valuable courtesies.

This reservation is called a "park," which conveys the idea of a pleasure-ground, and no railroad is permitted within it; but it is a wild region of lofty mountains, dense forests, large lakes and rivers, with falls both grand and beautiful, besides cañons of vast depth, innumerable geysers, and boiling pools of wondrous size and startling power, and these spread over an area larger than that of the States of Rhode Island and Delaware combined. It is safe to say, that, of the thousands who have visited this amazing region, not one can be found who will not say that a railroad in the park is a necessity, and that, the sooner it is permitted, the sooner will the object be attained for which the government set apart this domain. It is impossible to construct a comfortable carriage-road through the park, upon any appropriations which the government will make. The uneven-

ness of the country, and the thick pine and spruce forests, render the construction of roads very expensive ; and the peculiarity of the soil and climate forbid the construction of any excellent carriage-road at any reasonable cost.

The soil is generally a fine calcareous alkaline powder, of geyser formation, light as calcined magnesia. During July, August, and September, it scarcely rains ; and the dust of the roads, travelled by horses' feet and many wheels, rises during the heated day in clouds from which there is no escape, and from which the eyes, ears, nose and lips, throat and lungs, must needs suffer. It is no exaggeration to say, that often, when we were all compelled to get out on account of being obliged to lift the carriage aside so that those meeting us could pass, the dust was literally ankle-deep.

Many accidents occur, and many horses break down ; some stray at night, and others were supposed to be stolen. The inconvenience and dangers arising from bad roads and slow transit are large indeed ; and we do not think that these will ever be remedied until a railroad is made to the principal points, from which at moderate distances roads and bridle-paths could lead.

If railroad transit and hotel accommodations at different points are not introduced, much of

the value of the park is sure to be destroyed. Now scores of camp-fires are of necessity lighted every night, and in this dry region the fires are sure to spread. The forests are very thick; and the wood is pine, fir, and black spruce. When on fire, nothing but heavy rains can stay the devastation; and no one can ride over the park without seeing the ruins which have already been wrought. We have seen many camp-fires which have been left burning after the tents were struck. When at the Upper Basin, a camp-fire spread into a forest towards the west; and the flames, rushing to the high tops of a thousand resinous trees, made the night grander than all the geysers combined.

CHAPTER XXV.

TOUR OF THE PARK.

AFTER coming about fifty-six miles by rail directly south from Livingston, coaches convey passengers to the Great Mammoth Springs Hotel. The building is very spacious, the rooms large, and the ceilings high. It is quite unfinished, and hastily constructed; but it is very comfortable, and the table is good. The wood of which it is built was growing in the forest last March, as Mr. Hatch tells us. The hotel is four miles south of the north line of the park, and six miles from the terminus of the Northern Pacific branch road.

Starting from the hotel to make the tour of the park, for more than two miles, driving to the right of the terrace, you slowly climb a steep hill, difficult to go up, and dangerous to come down. This hill is a foot-terrace of Terrace Mountain, which is of geyser origin. The wonderful cone of the Lone Star Geyser can be seen on the left of the road. At the left you will see Swan Lake, distant from the hotel

five miles. You will next cross the Gardiner Fork (seven miles and a half from the hotel), to the upper end of Willow Park (eleven miles), and the obsidian cliffs and Beaver Lake (twelve miles).

These cliffs are of volcanic glass. They rise like basalt in vertical columns: they are a thousand feet long, and from a hundred and fifty to two hundred and fifty feet high. The glass is nearly black, like that of which cheap bottles are made. The glass carriage-road at the base—a quarter of a mile long—was made by building great fires upon the mass, and then pouring cold water on the heated glass, in which laborious way it was subdued to a road-bed.

The Lake of the Woods is fourteen miles from the hotel. A short distance beyond are Hot Springs, sixteen miles from the hotel. You cross the Norris Fork (twenty miles), and then reach the Norris Geyser basin (twenty miles and a half).

No one can adequately describe these powerful geysers of every variety, from crystal streams to thick mud thrown high in the air, the smoke, the sulphur odors, the various colors, the rumbling roar, the eternal violent boiling of so many pools, as though fiends were below, vying with each other in heating high the bubbling caldrons.

On the verge of the road is a hole which sends out with incessant roar and terrific force a blast of superheated steam. On the left of the road is the wonderful Emerald Pool, brim full of clearest water.

Just beyond is the Minute Geyser; and farther to the left is the Monarch, which once in twenty-four hours spouts a stream from a hundred to a hundred and twenty-five feet, and the flow of boiling water is immense. The Fearless is near by, with a crater from which is spouted dark-green water.

There are numerous other pools and boiling springs and smoking basins. These must be seen to be appreciated: no words can fairly convey the impression which they make.

Next comes the Gibbon Paint-pot Basin; from the hotel twenty-five miles. This beautiful place is several acres in extent, and is half a mile north-easterly from the bluff at the head of Gibbon Cañon. It is not very easy of access, as there is no road, and the trail is indistinct. These "paint-pots," as they are called, are immense pools of boiling water, of every variety of color, and grand in their vastness. They should not be passed by. They cannot be seen from the road; but long before you reach them, their smoke, their smell, and their noise will tell you where they are.

As you turn to your left, and enter the Gibbon Cañon, on the right is a foot-bridge over the river. A trail leads from the bridge, up the rough slope of the mountain, a thousand feet above the river. You then reach the Monument Geyser Basin. This basin contains five acres. The geysers are nearly extinct; and the twelve monumental cones have a strange appearance, and give the name to the basin. The belching steam is almost deafening as you stand near, and is heard for miles: it is superheated, and will shrivel a stout young pine in a minute. We are now from the Mammoth Hotel over twenty-five miles.

Next come the falls of the Gibbon River, from the hotel twenty-nine miles. These are on the right, and are not seen from the road: it requires considerable exertion to reach them. They are very fine.

Half a mile farther we come to Cañon Brook, a beautiful crooked stream.

We next reach the fork of the Firehole River, from the hotel thirty-six miles. On the right and west side of the river, some distance from the main road, is a little hotel called Marshall's: to reach this, you must ford the river.

A little more than a mile from Marshall's, following the road, you come to the blacksmith's shop of Graham Henderson, who is

employed by the government. His log house is at the forks of the road; the right leading to the Upper Geyser Basin, and the left leading to the falls and the Yellowstone Lake. This is from the Mammoth Hotel thirty-seven miles.

Next we reach the Lower Geyser Basin, from the Mammoth Hotel thirty-nine miles. This basin is of large area, and in it are known to be seventeen geysers and many hot springs. In one of these the whitened skeleton of a buffalo was discovered. The Fountain Geyser is the most remarkable in this basin. West of the geyser is a group of springs where the deposit is such that the ground appears deluged in blood.

We next reach the Midway Basin, from the Mammoth Hotel forty-one miles. This basin is on the right across the Firehole River, high above the stream. A foot-bridge leads to it: its ever-ascending smoke will point it out. It runs a mile along the river-bank.

The Sheridan Geyser, named after the illustrious general, is, without doubt, the largest in the known world. Gen. Sheridan, while at the Mammoth Springs on the 31st of August last (1883), told my father that he was present at an eruption of this geyser; and he subsequently wrote an account of it as follows:—

HEADQUARTERS MILITARY DIVISION OF THE MISSOURI,
CHICAGO, Oct. 23, 1883.

HON. EDWARDS PIERREPONT,
No. 103 Fifth Avenue, New-York City.

My dear Sir,—In reply to your note of Sept. 14, inquiring how the "Sheridan Geyser" in the Yellowstone Park came to receive its name, I would say that in 1881 I visited the park with Mr. Baronett as my guide. He was the first person to tell me of this geyser, had seen it when it first erupted, and had named it after me from that time. The crater of the geyser was about seventy feet in diameter, and threw up a column of water of about that diameter and about four hundred and twenty-five feet high, as estimated by Mr. Baronett, who has had great experience with geysers. Its period, at that time, was about four days. In moving out from the Geyser Basin, about four days after a previous eruption, I stopped some time in order to see the display: but my time would not permit me to wait longer, and I had to move on; when I reached the Lower Geyser Basin, the eruption took place, and I was distant from it some three or four miles. It seemed to be of unusual height, but I did not see it while immediately in its vicinity.

In 1882 I revisited the Geyser Basin. I discovered that, during the interval, the action had been very violent: the crater had increased, and eruptions had torn away the surface of the crater in the direction of Firehole River, making a slight depression in the general surface. Large blocks of stone had been thrown out, and carried by the current through this depression into Firehole River, while smaller rocks

were scattered for some distance around the crater. I was so unfortunate as not to see it in action again; though after I had passed it, and was examining the geysers of the Lower Geyser Basin, there were two eruptions from it, separated by intervals of about two hours, but they did not seem to be so high as the first one I saw.

In 1883 I again visited this geyser: I did not have an opportunity of seeing it in active condition, but the appearance of the crater indicated that there had been very violent action.

I enclose a letter of Surgeon W. H. Forwood, U. S. A., who accompanied me upon each of my visits to the Yellowstone Park, and who examined the geyser more carefully.

Very truly yours,

P. H. SHERIDAN,
Lieutenant General.

CHICAGO, ILL., Sept. 24, 1883.

GEN. SHERIDAN, *Chicago, Ill.*

Dear General, — In reply to your inquiry regarding my observation of the Sheridan Geyser, I have to say that I was present, and saw an eruption of the geyser, Aug. 21, 1882. It was early in the morning: the air was chilly, and the steam condensed with great rapidity. The water rose at first in a great body, perhaps twenty or thirty feet in diameter; but before it had reached fifty feet in height, the whole place was enveloped in such a dense cloud of steam, that I could only judge of what was going on by the tremendous rushing noise, and the vibrations of the surrounding surface.

The column of steam was two hundred feet in diameter, and shot up several hundred feet into the air. The eruption lasted about five or six minutes, accompanied by the throwing-out of small rocks, fragments of the geyserite; and when it had subsided, a brisk shower, from the condensing vapor, fell in a circuit around the crater.

The group of hot springs at this point was first described by Dr. A. C. Peale, in United-States Geological Report for 1871, and named by him the "Wayside Springs." The one now known as the Sheridan Geyser was called the Caldron. Its eruptions are believed to have begun some time in 1881.

These were first discovered and pointed out by Mr. Baronett, owner of Baronett's Bridge. Passing from the state of a hot spring to that of a geyser, it was entitled to a new name; and Mr. Baronett, as the discoverer, was entitled to name it, which he did, calling it the "Sheridan Geyser." I recognized his priority, and adopted it in my report of 1882.

Very respectfully your obedient servant,

W. H. FORWOOD, *Surgeon U.S.A.*

An attempt has been made to call this the Excelsior Geyser. This heated pit is three hundred and thirty by two hundred feet. The water is of a deep clear blue, more beautiful in tint than any blue of the sky: it is wonderfully transparent, and you can look down more than twenty feet below the surface. It is intensely agitated, and dense clouds of steam incessantly arise: it is only when the wind sweeps the vapor

aside, that you can look deeply down. It was not known to be a geyser until a few years ago, when the eruption was so great that the Firehole River was so swollen as to carry away the bridges below. Col. Norris, then the superintendent of the park, reported that in the summer of 1880 the power of the eruption was almost incredible; "elevating sufficient water to heights of from a hundred to three hundred feet, to render the Firehole River nearly a hundred yards wide, a foaming torrent of steaming hot water, and hurling rocks of from one to a hundred pounds in weight, like those from an exploded mine, over surrounding acres." When in action it causes rumbling vibrations like an earthquake, and throws out stones like a volcano. We did not see it in eruptive action. It is popularly known as "Hell's Half-Acre." The intervals of eruption are as yet unknown.

Next we reach Old Faithful in the Upper Geyser Basin, ten miles above the forks of the road, and from the Mammoth Springs forty-seven miles. This basin is some four miles long; but the principal geysers are situated on both sides of the Firehole River, and within the space of about half a mile. Excepting the Sheridan Geyser, which far surpasses any other, the chief geysers are in this basin. There are more than twenty.

There are numerous other geysers and boiling springs in the park, but I have mentioned the most noted. There are several on the Yellowstone Lake. They often injure the waters of the lakes and rivers into which their overflow runs, rendering them warm and disagreeable to the taste, and often unhealthy.

We now return to Henderson's (the blacksmith's) at the road-forks, some ten miles north of Old Faithful. Taking the easterly and left fork of the road, we advance towards the Yellowstone Lake; and going twenty-two miles we come to the other forks, the right leading to the lake (ten miles), and the left going to the falls (eight miles): hence from forks of road at the blacksmith's shop to the lake is thirty-two miles, and to the falls thirty miles.

The distance from the Mammoth Springs Hotel to Old Faithful in the Upper Geyser Basin, thence to the Yellowstone Lake, and thence back to the Mammoth Springs, is by the carriage-road a hundred and seventy-five miles; and the collateral distance travelled over in bridle-paths to see the Yellowstone Cañons and various other curiosities is twenty-five miles, making in all two hundred miles.

The lake has no considerable attractions. It has no snow mountains. Geysers and hot springs flow in some places; and with a little

wind the waters are made turbid, and unfit to drink. The trout are large and sickly, full of white worms, which make them very thin and unfit for food, and no more gamey than a bull-head or a codfish. The lake is said to be twenty miles by fifteen, and very deep. It may be "crystal clear" in some places, but we saw no such. In and around the lake and river, we saw innumerable swans, geese, pelicans, ducks, and many snipe and woodcock.

In the river we caught many healthy trout, which were gamey enough, and took the fly quite eagerly.

Camped on the road to the lake. Went out with Wyatt in the hope of seeing some game; found plenty of old "sign," but nothing else. We came across one curiosity which all the men said had never been seen in the whole of their hunting experiences, — the winter-quarters of a bear, surrounded by mounds of deposit; and, as it is generally supposed that bears take no nourishment during their winter seclusion, this circumstance surprised us all.

THE GREAT FALLS OF THE YELLOWSTONE.

To reach the falls, we return from the lake ten miles by the road, and following the north fork some two miles we reach on our right Sulphur Mountains or Crater Hills. These hills



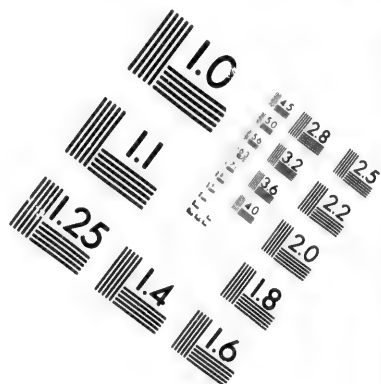
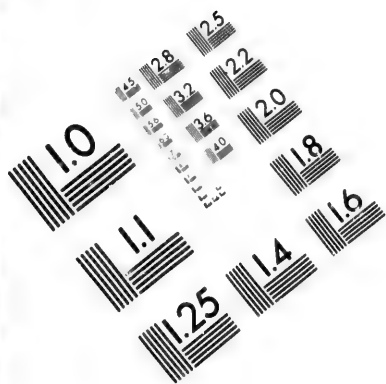
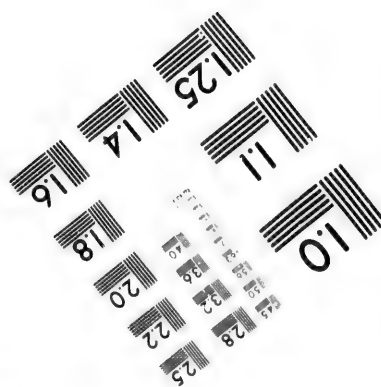
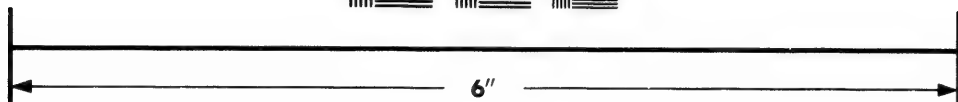
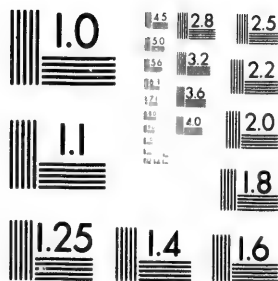


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are about a hundred and fifty feet high, composed of calcareous substances impregnated with sulphur and iron. At the foot of the hills are numerous sulphur-springs. The sulphur-deposits are very pure, and hundreds of tons lie in heaps of bright yellow crystals. The fumes are quite powerful as they rise from the boiling caldrons, and a serious accident happened to a horseman who rode too near one of them. They are very curious and wonderful.

From Sulphur Mountains you proceed about six miles until you reach the Upper Fall of a hundred and twelve feet.

Between the Upper and Lower Falls, the distance is half a mile. Midway on the west side are the Crystal Cascades, which are the falls of a small, wild, rocky stream which rises in Mount Washburn, and runs into the Yellowstone: these three cascades are very beautiful, and make a fall of about a hundred and thirty feet. Here the Yellowstone rushes almost due north through a very narrow gorge, and the Great Fall of three hundred feet or more soon appears. The waters are very green. The Lower Fall is far deeper than the Upper, but in many respects the Upper is the more attractive.

But the Grand Cañon, twenty-four miles long and at some points twelve hundred feet deep, is said to be far the most wonderful mountain

gorge yet discovered in the world. Its lofty rugged sides, brilliant with varied colors, are marvellous indeed. We observed that tourists loved to linger here above any other place in the park, and artists from Europe were sketching its unrivalled beauties.

This park, — wonderland as it is called, — large as a European principality, has been but partially explored; and new discoveries are pretty sure to be made. I have the assurance from competent and trustworthy men, that, since shooting at game is prohibited, the lakes will soon be alive with wild geese, ducks, swans, and other water-fowl, and the meadows and plains full of buffalo, deer, antelope, elk, and the wild big-horn sheep, with bears also, unless they are excepted from the order preventing the killing of game.

The present roads are to a large extent unwisely laid out, the engineering very defective, and the construction atrocious; but the government has lately put the roads under the charge of Lieut. Kingman, who is said to be a very competent engineer. We met him in the park. He is a young man of agreeable manners, intelligence, and energy, and much may be expected from his New-England industry and ambition for success.

There can be no doubt that increasing num-

bers will visit this interesting region as the facilities of transit and hotel accommodations increase; and it is to be hoped that scientific men will be able before long to satisfy themselves and the world as to whether the geysers and boiling pools come of the chemical action of water upon lime and other minerals, or from internal fires kept burning in the earth.

As you drive through the park you will see miles upon miles of thick tall forest, covering an area of more than a hundred thousand acres, in which every tree is dead, not a living branch or leaf appearing. The trees stand thick and upright, their limbs firm, and the fine bushy spray nearly perfect even to the ends of their branches; their color is ashy white, and in the moonlight they seem like forest corpses standing erect where the blast of death struck them all at once. On many hillsides you will see forests longer dead, prostrate by the winds, covering the ground thickly as wheat-straws on a cradled field.

You need not travel to Yellowstone Lake to catch trout in a cold stream, and boil them in a pool, without changing your tracks: you can do it on the banks of the Gardner River, within two miles of the Mammoth Hotel.

On the 30th of August the President arrived,

escorted by Gen. Sheridan, and accompanied by Secretary Lincoln, Senator Vest, Judge Rollins, the accomplished surrogate of New York, Gov. Crosby, and others. A cavalcade of mules and horses, three hundred in number, attended them. They had made an easy journey on horseback, the horses walking the entire way, and stopping a few minutes for rest every hour.

The distinguished party encamped near the springs; and in the evening the President, with Gen. Sheridan and the rest, visited the hotel, where he was entertained with music, etc. They left early on the 31st for Livingston *en route* by the Northern Pacific for St. Paul.

I was hunting in the Hoodoo Mountains at the time, and did not see the President; but my father was at the springs, from whom I received the information about the President's visit.

We noticed, while at the falls, a bird by the water's edge, picking up his food with great industry; and on examination we found that he was extracting from a little stone house a worm, which for its dwelling had cemented together small particles of granite in a curious manner: the mosaic-work was wonderful, and the glue was not dissolved by the water.

Mr. Brown, an English artist, was here, taking in water-colors some of the more beautiful views of this marvellous cañon.

Just here the retriever of Dr. Bushnell rushed into the camp, with his nose full of porcupine-quills; he yelping with pain as most of them were extracted, while some of them broke off, too deeply embedded to be pulled out.

Here I had some superb trout-fishing by climbing down a very steep cliff, and getting close to the fall where there were some pools out of the main current, and which evidently had not been fished; for, the moment I threw the small white miller, the rush to seize it was immense. The sport was so exciting that it was dark before I was aware; and the dangerous ascent delayed me so long that the camp became alarmed for my safety, and commenced a search. I hardly appreciated the peril until the next day, when I saw that a misstep would have sent me down the cañon many hundred feet. However, I had the pleasure of a fine catch of trout which had never experienced the sensation of being caught before.

To those who enjoy trout-fishing and shooting big game, the Yellowstone, its tributaries, and the Hoodoo Mountains, afford a healthful pleasure of unequalled attraction.

CHAPTER XXVI.

LOST IN THE HOODOO MOUNTAINS WHILE HUNTING ELK AND BIG-HORN.

EARLY on the 26th of August I left the Great Falls of the Yellowstone with a hunter Mr. Wyatt, and Mr. Murray to assist us, taking the three pack-horses, and three saddle-horses to ride.

My father, with the government escort, returned to the National Hotel at the Mammoth Springs; and I with my party started for a hunt of three weeks in Wyoming, east of the park, among the Hoodoo Mountains, a range north of the Big Horn and Stinking Water.

This is the region known as the land of petrified forests, or Goblin Mountains; difficult of access, very wild, of great altitude, and a good place for "Rocky-Mountain sheep" or "big-horn," an animal which I had always longed to kill. Its cunning is even greater than that of the chamois or ibis; and it is immeasurably more difficult to shoot than the noble elk—to my mind the monarch of the forest.

We filed along the cañon side, looking down a thousand, and at times twelve hundred, feet, to the Yellowstone below. Our six ponies in line made quite a cavalcade. Wyatt led, on a grand black hunting-pony not afraid of bears, though apt to shy at any small animal like a chipmunk running across his path; the suddenness being to him more terrifying than any real danger. Next came the first "pack," a roan *cayuse* named "Mud Geyser," lazy, sure-footed, slow, and fat. Next then, your humble servant, riding "White Stockings," a pretty sorrel, very steady and speedy, and capable of standing any thing. Then followed our second pack, "Buckskin," a strong yellow *broncho*, an infernal bucker, but a splendid pack-horse. Then in order, my second man Murray, riding "Old Reily," an aged roan, blind of one eye, ugly, and apt to stumble: his good qualities we only found out later on, when we discovered him to be the best riding-horse of the outfit, both as to his "lope" and walk. Last of all came the dark sorrel, "Rocketeer," — as named by a lady friend after I had explained his powers of locomotion, — packed lightly, and led by a rope.

The two leaders of the four mules attached to father's military wagon bore rather comical names, — one Henry Ward Beecher, and the other Horace Greeley.

Mile after mile in Indian-file we followed the long trail along the top of the Grand Cañon, now and then pausing for one second to catch a glimpse of this marvellous gorge when some particularly imposing point had been reached. Rocketer occasionally objected to these views, and acted very nervously, which was not to be wondered at.

Those of you who have read "Bailie Grohman's" interesting account of the unexplored cañons of Colorado — the dizzy depths, rushing waters, and perpendicular narrow walls rising thousands of feet — will possibly appreciate our day's ride northward along the great Yellowstone Cañon. The feeling is as if we were going into the depths of a Norwegian whirlpool, which Poe so graphically describes in "The Descent of the Maelström."

Soon after this we parted with our cañon, and began to ascend. Now we encircled the base of Mount Washburn (height 10,340 feet), and then climbed on till we were some eight thousand feet above sea-level; the trail running over hills, girding mountains, now cutting through the open for several miles, and then suddenly striking through the pines.

Thus we travelled on our course; and for one moment, in the far distance, we caught sight of our hunting-ground, the Hoodoo Mountains,

cold, blue, snowy, lying far to the north. In two more days we hoped to reach them before getting any sport; for if one in the present day expects to kill "big-horn" he will have many a mile to travel, and weeks perhaps of hard work, before ever seeing the imprint of a single hoof.

Elk may perhaps be found at any time; though, as long as "hide"-hunters exist, this noble game will continue to decrease, and probably be the more difficult to kill. But "big-horn" are quite another thing. The hide itself is worthless, and the difficulty of hunting them so great as to prevent their being much thinned off for meat; and yet, though a man might be in a splendid sheep country, see fresh signs everywhere and "beds" all along the rocks, still, if he were ignorant how to approach, he might not even be able to catch a glimpse of their much-prized horns.

Toward evening, after making twenty miles, we camped on Tower Creek, which empties, a few hundred yards farther down, into the Yellowstone.

Wandering down to the Tower Falls (a hundred and sixty feet), — so called from the curious lofty pinnacles which stand as sentinels on each side, — I tried to fish just where the creek empties into the main river, but found

that the sulphur-springs were so abundant as to drive every fish away, though a hundred yards farther up the trout were very plentiful. Returned to camp; and after making up the bed, and rolling myself in the buffalo-robe, I write these lines by the light of a candle stuck in the top of a molasses-can used as an extempore candlestick.

Aug. 27. — The night turned out very warm. After breakfast I found that one of my lead-pencils had disappeared, — a serious mishap; for, as I have but one left, its loss would leave me with no chances of taking notes. Met an Englishman going the opposite direction, and in the course of conversation found him to be a Cambridge graduate, which seemed quite a strange coincidence in this lonely region.

After journeying some fourteen miles northwest we reached the gamekeeper's cabin, so called from the fact of its having once been inhabited by such an official, though now owned by "Jump," a curious specimen of indifferent, kind-hearted humanity, half hunter, half prospector, living in this lonely little hut which was the last sign of civilization. The proprietor had not yet turned up, he (as we learned) being off fishing; so, following his example, I started for the East Fork of the Yellowstone, a small river but a few yards off. Finding a deep

hole, I managed to hook four pounds in a short time, using my favorite rubber grasshopper.

Going back I found "Old Jump," as he is called, entering the cabin; a long string of big trout in one hand, and an enormous pole in the other. He was booming with profanity, his gray locks and beard flying in the air, and his gaunt, bowed, very tall figure swaying about in a sort of loose, disjointed manner, quite ludicrous to behold. I gave him some rubber grasshoppers (which in his estimation were great curiosities), a couple of fish-lines, and some gaudy salmon-flies. These trifling gifts, coupled with a good drink of whiskey, made him most friendly; and he showered upon us every attention which his modest means could afford. Unfortunately he begged me to sleep on the floor of the hut instead of outside, and spread some of his own bedding down to make the boards soft. I agreed. Oh, horrors! the place swarmed with vermin, which, though unfelt by his own callous hide, made my night one of perpetual torment. Shakspeare's Clarence may have had an awful dream of dead men's skulls in the bottom of the sea, but I had something worse than dreams all night. At dawn I got a little rest.

When I awoke, a curious scene was being enacted: Jump was parching some coffee be-

fore the fire, which by the crackling gave evidence of having just been started. Reclining in different positions over the boards were drowsy men awaking to life, who had entered while we slept, at various hours in the night. A cat was purring in front of the stove; and an old hen, followed by three scraggy chickens, picked their way about, having just entered by the open door. Among the rafters and in the huge logs which made up the walls were hung every imaginable thing, — fishing-rods, colossal Mexican spurs with rowels like diminutive water-wheels, a coffee-mill, old Cheyenne saddles, bleached elk-horns, an aged porcupine-skin, a couple of sheep-hides shrivelled and only half cured, wet clothes drying by the fire, pieces of candle, flour, coffee, sugar, green tea, and a hundred other little odds and ends; which made up our last look at civilization, before reaching the remote wilderness for which we headed.

After dropping a line to father, — to be taken by the mounted mail-carrier, who twice a week stopped to lasso a fresh horse in the corral while passing to and fro between Cook's City (a mining-camp lying to the westward) and Livingston, — we packed up, said good-by, and were soon on the "blazed trail" leading southward towards the "Goblin Land."

Hour after hour we wound along through the timber, wading streams and climbing hills, until having reached a fair elevation we camped for the night by the side of a running brook.

After dining off a couple of pheasants (their ruffed black necks and fan-like tails and brownish-colored bodies making quite a different bird from the gay-plumaged English bird of the same name), and after the horses had enjoyed the good grass which abounded in the open, we saddled "White Stocking" and "Old Pard," and made a *détour* along the bottom-land, hoping perhaps to catch a bear digging roots. There were plenty of old "signs" of both bear and elk, but nothing fresh. Here and there we saw specimens of petrified trees, which marked the beginning of the Hoodoo region, which we hoped to reach the next day.

Guiding the ponies over several streams and creeks, we came upon several beaver "slides" and dams, having masses of large stones for weights on top, which Wyatt said these little fellows by their united efforts had managed to pile up. The limbs of the cotton-wood and quaking-ash are cut into pieces about a foot long, which the beavers lay aside for winter food, making use of the bark.

Returning, I shot a porcupine through the head; but, as night was drawing on, we had no

time for skinning. Their hides are difficult to pack; since the quills work their way through the skin of a horse, mule, or dog, causing intense pain; though the alleged power of the animal to shoot its quills is a myth, much akin to the well-known tale that Rocky-mountain sheep when descending cliffs land on their horns. I have observed large numbers of "big-horn" in order to ascertain whether there was any truth in these assertions, and have never seen an instance, nor have I ever met a hunter who would personally vouch for this absurd statement.

Aug. 29. — Continuing our journey over the blazed trail, we soon came to a very difficult ascent, excessively steep and arduous. Saw some old elk-trails and the fresh track of a bull elk. After more climbing, we at last reached snow-banks; and in two hours more reached the longed-for Hoodoo Basin, an undulating piece of land, made up of parks, the heads of streams, grassy slopes, little woody belts, snow-ridges, and recesses, the whole being surrounded, as far as the eye could reach, by ranges of vast snow-mountains and inaccessible rocky peaks. The altitude was ten thousand feet above the sea, and every thing bore evidence of being a good Rocky-mountain-sheep country.

Encamping by a little running stream from the melting of the snowbanks, we were surprised, while sitting around the fire, to be visited by two old hide-hunters, dressed in tattered clothes partly made up of skins, their faces tanned to a mahogany hue, and their whole appearance being that of another race from ourselves. For six years they had never slept in a house; their vocation being one of merely killing animals for the pelts, and, after half a year had been spent in getting a load, taking them to the nearest fur-station, and receiving in return powder, shot, flour, coffee, sugar, salt, and money, and then again burying themselves among the vast rocky ranges of the hunting-grounds. They both used Sharps, with the single shot, solid ball, and seventy to ninety grains of powder. We enlightened them as to where they were, had a regular hunters' chat about "trails," "whistles," "signs," "ranges," with arguments as to the killing power of various guns; until finally, as night was closing, Wyatt and I prospected the country on foot a little in order to map out a plan of action for the morrow.

We found lots of sheep-tracks along the precipices, and down in the timber we came across the half-buried carcass of an elk that our new acquaintances had killed and skinned only

a few days previous. All around were bear-tracks: though we could not exactly determine whether they were made by the straight claws of a grizzly, or by the curved ones of a cinnamon, the nails not being distinctly defined; their size was too large for a black bear. Making up our minds to watch next evening, we sauntered homewards, and soon all five, the old hunters joining in, sat round the blazing camp-fire; and for upwards of an hour I listened to hairbreadth escapes and tales of Indian fights among the Black Hills.

Before turning in, I took a look at the beautiful reflection of the moon on the snow-mountains; and then, as the night was cold, all three of us got under the tent. But presently Murray began to snore fearfully, and soon rolled himself up outside, which he always has professed to like much better than the close atmosphere of a tent.

30th. — Started on horseback with Wyatt, at dawn, for one of the snowy ridges that we saw towards the westward the evening before; it having every appearance of being good "sheep-ground." After riding a couple of miles, we dismounted and tethered; and with rifles in hand we cautiously made a *détour*, keeping the wind in our faces, and began to encounter tracks at every step, some bearing the appearance of

being only an hour old. Soon we came to some "beds" still warm; and, expecting to see our game at every step, we carefully crept up some rocks, and then inch by inch slowly raised our heads, and looked down. Wyatt was the first to smell game. Suddenly crouching down, he beckoned to me to follow: and both running round, we soon again slowly looked over the ridge, hardly daring to breathe; for there in plain sight, a hundred and twenty yards down the cliff, was a band of seventeen mountain-sheep, some lying down, others scratching themselves against some juniper-bushes, while one old doe kept watch as sentinel. We knew they had not scented us; but they evidently were beginning to get uneasy, so I began to prepare for a shot.

Wyatt pointed out the only ram of the outfit, a young two-year-old fellow, — the rest being old does and fawns, — who seemed, for some reason, not over-anxious to come from behind the bushes against which he was polishing his horns. Finally he made up his mind, and came in full sight: so quickly raising, I took steady aim, and fired, letting him have it rather far back, the ball ranging forward. The whole herd, for a moment, seemed rather disconcerted; then wheeling, dashed down the cliff. Wyatt took a hurried shot; and I had another try at a

fawn who ran broadside, affording me a pretty chance behind the shoulders. We then ran around, and got a couple more shots at four hundred yards' range; but, owing to want of calculation, the balls fell short, plainly ploughing up the ground.

We had not waited to observe the effect of our first fire, all vanishing over the cliffs; so that now we slowly returned, half in doubt as to what would be our success.

All fears were soon dispelled; for, on scaling down sixty yards from where they had been standing, we found both the ram and fawn stone dead, lying but a few feet from one another. Taking off the head and horns, and cutting a quarter for camp, we struggled up again, the rarefied atmosphere making us halt for breath every few yards. Coming up with the horses, we packed the meat and horns behind "Old Pard," and soon reached home, quite well pleased with our morning's work.

The skinning process was well done by Wyatt, both the jawbones saved, and the meat picked out; and soon, after a good salting, the hide was propped up to dry, — all these precautions having to be taken to insure a safe delivery into the taxidermist's hands.

Suddenly black thunder-clouds rolled over us, followed by rain, sleet, and hail. Quickly gath-

ering the valuables into our tent, huddled together, we waited patiently for the storm to pass. At this altitude of ten thousand feet, the old mountain tops resound with peals of thunder, re-echoed from peak to peak. The sun burst forth again at four P.M., and one hardly realizes that a raging storm has just passed over.

Starting off for the elk-carcass, we found a bear's tracks, showing four different journeys from his cave somewhere down the ravine. Finding a screen of spruce boughs, at a distance of some fifty yards, we waited.

As the sun went down, we were occasionally startled by a warning note of approaching game in the shape of a chipmonk's squeal, or the chattering of a red squirrel. Once a large black eagle wheeled round, alighted, and began to stalk up to the meat: but, catching sight of us, quickly soared away. The sun went down, darkness set in, and we could just see the elk's outline. At last the air grew very cold; and, being unable to take sight, we started for camp.

Next morning we discovered that the bear had come for his evening meal, but, scenting us, had circled round behind; his huge tracks being only a few yards distant in our rear. Luckily he was not famished, or else a "charge" would have been inevitable. As it was, he must have

found another carcass, or else this one was too far gone; for he never came again.

Aug. 31.—After riding our horses down and up some deep gulches and cañons to a point some six miles distant, we dismounted, in the hope of scaling the main peaks of the Hoodoo Mountains. Drizzling rain set in, which, added to the hard climbing, made this the hardest day of all. We started on the trail of three does, after following which for a mile or so, a young buck joined the trail; and, on pushing on still farther, we entirely lost track of the band amidst the rock-work. Rejoining the *cayuses*, we soon reached the tent, both empty handed and well worn out.

At eleven P.M. one of the most terrific thunder-storms set in that even Wyatt had ever witnessed. Only up at this great height can one realize the fearful grandeur of the lightning: peal upon peal of thunder reverberated among the rugged mountain tops. Sheets of rain fell, wetting the contents of my tent through and through; the canvas not being proof against the drenching storm. Being under a tall pine-tree, and thus being protected somewhat from the wind, the tent-pegs remained fast; but I had some fears as to lightning, since several streaks had descended into the ground only a few yards off, thunder following instantaneously.

Sept. 1. — Morning found us wet and disconsolate. Fire could hardly be started. Soon the sun shone out, which quickly dispelled our misery. Starting about ten A.M., we took another range, and found ourselves following along the side of a deep cañon. Seeing plenty of sheep-signs, we cautiously moved over the rocks, hardly even whispering.

Though crawling along with the greatest circumspection, I happened to loosen a little stone. While watching it roll down, inwardly cursing my carelessness, as the little supposed mischief-maker passed a large boulder, it turned into a blessing in disguise; for out started, not sixty yards away, a fine three-year-old ram with beautifully curved horns, both points being perfect. Instantly raising my rifle, making allowance for elevation, I fired; the ball entering, and passing through rather too far, behind the shoulders. Rushing forward, for fear of losing sight of him among the rocks, it took four more balls to actually bring him down; three passing through his side, entirely too far back, and the last one breaking his hind-leg.

The males of the larger animals of Wyoming, and throughout the West in general, are very hard killing, unless hit exactly right. At the beginning of the rutting season, the bull elk, covered as he is then with fat, measuring nearly

everywhere four inches in thickness, will carry off nearly as much lead as a rhinoceros; and he is fully as long-lived as a bear.

Both these ram's horns were perfect; and as they now cast their shadow over my writing-desk, many memories of hunting-days are pleasantly recalled, and I can once more fancy myself scaling some peak in the hope of finding "big-horn."

Returning, we built a roaring fire, and were soon drinking our coffee by its blaze.

Sept. 2. — To-day, taking another route to the north-west, we climbed some strangely chiselled peaks, from whose summits we had beautiful distant views. Later we followed an old ram's track for miles: at every moment the increasing freshness of the print gave us every hope of soon coming up with him; but, after several hours of unsuccessful stalking, we were forced to return. Feeling quite satisfied with our two rams in four days, we made up our minds to strike camp next morning, returning to lower regions in search of elk.

All the elk-tracks were rather old, most of them pointing westward; and the old hunters assured us that they had left the range where we were, and without doubt were seeking winter-quarters below. Our trapper friends had killed only three elks in one week; which,

considering the undisturbed condition of this region, was but poor luck.

It had not been our custom to fire at small game when in a hunting-country; but, as we had decided upon new quarters, we could not resist potting for supper a couple of young jack-rabbits and a grouse.

Sept. 3. — "All set" being said, we wended our way westward; and, after descending some eight miles or so, we camped under a clump of tall firs, on a stream which eventually empties into the Yellowstone. After a heavy luncheon off sheep-steaks, Wyatt and I, after saddling "Old Reily" and "Old Pard," scrambled up the hill in order to reach the table-land, the top of which we had judged must be pretty flat, and full of springs.

We encountered fresh signs on all sides, — tracks, beds in the grass where the elks had lain the night previous, and quantities of young trees whose tender bark was freshly lacerated by the bulls while polishing their antlers.

After making a long circle on foot, we rejoined the horses, and were quietly riding through the timber, giving free rein to the mustangs, which nimbly cleared the many fallen logs which form the greatest impediment to hunting game in the "whistling" season. At this time in the year elks are generally moving,

and keep pretty well concealed amidst the dense forests of Wyoming. Just at this instant, when we had given up all hope of hunting any more before dark, "Old Pard" shied violently to one side, nearly hurling Wyatt against a tree. The cause was easily seen; for not thirty yards off a large bull elk and two does were standing in the shade of some trees, looking straight at us, as if wondering at the intrusion. This was my first sight of this noble game, and his imperial grandeur awakened an admiration that for a moment made me hesitate to shoot. Quickly dismounting, however, I sighted as well as the twilight permitted, and fired, taking aim, as near as I could judge, behind the shoulder. The bull quivered, staggered, and for an instant seemed to hesitate; then like lightning all three wheeled, and crashed through the underbrush, their fierce, mad, headlong retreat over the fallen timber being audible for several minutes. Approaching the spot, we saw quite plainly, both by the cut hair and tracks, that the bullet had gone home; but as it was too dark to follow in pursuit, there being much danger in so doing of our not reaching camp, we abandoned all farther chase.

Sept. 4. — Wyatt and I, mounting our ponies, took a rather different direction, picketed the horses, and had a long day's tramp. About

noon we were climbing over a rough piece of ground, where every other step was across the fallen trunk of some old fir, while the pines themselves grew so close that the sun's rays could but feebly penetrate.

Suddenly a crackling, as of some animal stealthily moving away, seemed to continue in front of us; and once, turning sharply around while we were balancing ourselves on a huge log, for the first time in my life I saw the "American mountain lion," or puma. For one instant we beheld a long, yellow animal on the point of leaping down from a tree: a spring, something long and yellow flashed past us; and, before we had time to shoulder our guns, the puma had vanished behind one of the innumerable stumps which everywhere barred our progress.

Hardly had we advanced a hundred yards before we heard the "whistle" of a bull elk. Now, those who have never heard the call of the male while running, let them imagine a species of whistling which commences rather shrilly, then becoming semi-musical, resembling an æolian harp, finally ending with a bugle-note; the entire sound lasting three or four seconds.

The season with *wappiti*, or elk, is September; during the early part of which the bulls are

very fat, their necks increasing in size proportionate to the length of time the animal has been running. In from three to four weeks he loses his flesh, becomes very poor, and remains so all winter until the following spring.

With the utmost caution we began to draw near the spot from whence the sound proceeded, and had not crawled more than sixty yards before we came upon a magnificent old bull standing close to a cow not more than seventy yards off. Taking good aim, I took two shots in rapid succession; one piercing the lungs, and the other entering the region near the heart. His mate seemed loath to leave, and, even after the shooting, trotted once or twice around him. At last they both broke away, and I had time to put in a couple more shots while running.

Hastening up, we soon saw splashes of lung-blood; so, giving him plenty of time to stiffen, we trailed, and after a few moments came upon the *wappiti* lying on the ground, swaying his splendid horns from side to side in the agonies of death. As he saw us approach, his eyes flashed, and he started to his feet once more, lowered his head, and for one moment we expected a charge: so taking good aim, I put a bullet through his heart; and he sank to earth, dead.

This was my first elk; and as I looked on this monarch of the woods as he lay stretched out to his full size, all my previous deer-specimens compared with this giant seemed infinitesimal. His horns spread some four feet, which is unusually wide; the six points of both sides being perfect. They now adorn our hall.

The trailing of elk at this time of year, unless shot through the lungs, is very difficult, owing to the immense quantity of fat which seems to obstruct the flow of blood, and prevent it gushing out.

After skinning the head, and taking off the horns, we cut off the tenderloin and sirloin and tongue, packing them up for safe-keeping; and, as we were out of bacon, we took the tallow also, covered as it was with the caul. Returning to camp, we delighted Murray with the prospect of plenty of meat, and got every thing prepared for packing it next day.

Sept. 5. — Leading all three of the pack-horses to where we left the antlers, we sawed the skull and horns in two, salted the head, skinned and packed sixty pounds of meat, and again started on a hunt. Once more we caught a glimpse, for one instant, of a puma: but their cat-like movements soon enable them to creep out of sight; and unless hunted with dogs, and regularly treed, the chance of ever killing

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one is very small. Soon after this, in a little open, we came suddenly upon a cow and calf; but as we had plenty of fresh meat we let them go, and returned to camp.

Our luxuries had become pretty low; sugar, coffee, flour, and salt being nearly all that remained of our store.

Sept. 6. — Went out next day; heard an elk whistle several times, but we were unable to get near him. Getting back to camp, we found our old friends, the hunters, had come down to lower quarters in the hopes of finding more game.

By the merest accident I secured the largest pair of "big-horns" that had been seen. The old ram was seen towards evening, while butting with another, on the very ridge I had left the night before; and one of the hunters shot him. I paid him for his luck, and took the horns, which I now have, together with those I shot myself. They measure sixteen inches in circumference, and thirty-seven and a half inches in length of curve. All the hunters concurred in the opinion that they were the largest which they had ever seen.

We decided to start the next morning, in the hope of finding bear among the berry-patches around Slough Creek.

Sept. 7. — Murray had such a sick-headache

this morning, that we concluded to wait one more day: so, leaving Wyatt to take care of the camp, I went with one of the hunters in search of any thing in the shape of game. A thunder-storm coming on, I was surprised to see my companion always take shelter under a small tree in preference to a large one; and was struck by his telling me, that, during his six years roughing it among the mountains, he had never seen lightning fall on small trees, the larger ones nearly always having a tendency to serve as lightning-rods.

While walking through a dense growth of small firs, a cow elk ran full tilt across our path; and as my companion wanted the meat and hide, I brought her down in her tracks stone dead, making a fine shot.

Sept. 8. — At six A.M., the camp was already bustling with the work of packing up. We had plenty of fresh meat, including the loin, sirloin, and plenty of tallow from the caul to take the place of bacon, which had given out.

As we were riding off, a couple of "prospectors," whose camp-fire we had seen near by the night before, gave me some fine specimens of iron-pyrites. Old miners often call these brilliant, though worthless, minerals, "tenderfoot specimens." These good-hearted fellows having no fresh meat, we left them some ribs of elk.

Riding on ahead with "Old Reily," I got over the twenty-five miles which separated us from the Jump cabin quite easily, the others soon following.

I killed some grouse on the way; and we had a delicious mess of broiled birds for dinner, which, out here in the invigorating air, needed no sauce or silver dishes as an appetizer.

Sept. 9. — After travelling northward for four hours, we reached Slough Creek. I thought, that, as the bears had come down from the mountains after berries, we might try our chances for a couple of days toward the head of the stream before returning home. An unforeseen circumstance, however, which happened three days later, blew my plans to the winds; and the castles which my imagination had pictured soon vanished.

While we were passing over the rolling country, we just caught sight of some forty antelope running up a steep grade, and soon disappearing from view, their white flanks glistening in the sunlight.

We encamped on Slough Creek, which I shall always remember as the only stream that I ever tried in which fish actually were so plentiful that they rose the instant the cast was made. In thirty minutes I landed six trout, weighing collectively nine pounds; one, reaching while fresh

two and a half pounds, affording play for many minutes.

Starting at three P.M., we made a *détour* of some two miles, in order to get where we imagined the antelope must be. As we cautiously mounted the crest of a little hill, we caught sight of the band, who, at the signal of danger from an old doe standing sentinel apart from the rest, galloped off on the run. Casting our eyes over the herd, we could see no bucks, though we could not refrain from taking a few parting shots at their fast-receding heels; our volley producing no result beyond touching one slightly on the back, enough to make the hair fly.

Sept. 10.—This morning, after proceeding a few miles farther, we reached a large basin, containing the heads of streams, bogs, and saw-grass, surrounded by high hills. After catching a good mess of trout, we took a good look at the ground, and found some freshly made black-tail tracks and some pretty fresh bear-signs.

Sept. 11.—As it was necessary to get a bait for bears in the shape of the carcass of some animal, Wyatt started out early on "White Stocking," leaving us to have a good day's fishing. Going up the stream, and casting my flies at intervals into the many deep holes which abounded, I finally succeeded in getting a string

weighing thirteen pounds. The last was a monster. I had watched him through the clear water, gliding under a large half-submerged rock at the base of a riffle, and, seizing my opportunity, made my cast, using a large bright scarlet ibis fly. Rising instantly, he made his rush; and, before I had an opportunity to let out sufficient line, he snapped in two my dearly prized ten-ounce rod. Having still hold of the line, I played with him for a couple of minutes; and after some difficulty, by placing my thumb and forefinger under his gills, lifted and landed him in safety. The scales just showed a weight of three pounds, which, for a speckled brook-trout, was the largest catch I have ever made.

That evening, on returning, we saw an outfit of twenty-three horses winding down the mountain side; on nearer approach, I recognized a few old acquaintances, who were escorting a large hunting-party of Eastern men on their return homewards. In return for some fresh fish, we received some blacktail-meat, an offering most needed, as our store was nearly gone.

After supper we all exchanged courtesies round the camp-fire. Their luck had been quite fair. Five miles to the eastward they ran upon a herd of buffaloes numbering about a hundred and eighty, out of which they killed seven. With the exception of one blacktail and one

cow elk, this had been their only sport; and some of them grumbled slightly at the lack of game, not having even seen a big-horn, of which they had heard so much. Being on the way home, they intended to start next morning for the Mammoth Hot Springs. Two of the men and four packs were going the next day back to the carcasses, near which seven quarters were hanging from the limbs of trees, covered over with bags to prevent fly-blows.

The packers invited me to accompany them; saying that they would point out the location, in order that we might pitch camp near by and watch the carcasses, which were baits for the bears which we were seeking.

Sept. 12. — About seven o'clock in the morning Wyatt came back, having killed his elk, and, not being able to return that day, passed the night by a log-fire.

Giving orders to strike camp and follow on the trail up to the baits, I galloped off with the packers up the trail previously made by the twenty-three horses. The packers and I intended, when the seven quarters of buffalo-meat had been placed on the horses, to return the same way, and meet my own men coming up, thus being able to guide them back to where the remaining meat was lying, and let the packers return homewards, joining the rest of

their party somewhere near the Mammoth Hot Springs. As we reached an elevation, I waved my hand back to the still smoking fire of my encampment, about which I could see Wyatt and Murray busily engaged in getting ready to start.

This was the last we ever saw of one another during this expedition !

The sun was warm and the day perfect, no omen warning us of imminent danger. After climbing and circling several of the mountains, the ascent being exceedingly steep, repeated halts were required to ease the horses; our course occasionally bringing us through dense forests of firs, among which the trail was so faint that I several times anxiously inquired of the packers whether there was any danger of my men missing their way, an idea which they scoffed at as an impossibility for old trappers.

Leading our horses down a little cañon, we arrived at their old encampment on a running stream; a huge fir near by presenting a curious appearance with its Christmas-tree load of buffalo horns, quarters, and hides hanging from the limbs. Riding a few hundred yards farther, we breasted the crest of a hill; and far off on a plain, some six miles distant, the men pointed out the actual spot where the carcasses lay, showing me certain landmarks as guides to the place.

Returning, and again expressing some fear as to my men finding the trail, they replied that there was not the slightest danger: but, if I still was troubled, there would be no harm in riding on ahead and meeting them; saying that when they had finished packing the meat they would rejoin me, either on my way back with my own men, or would overtake me before I reached them.

Going slowly over the back track, I shot a pheasant, hoping that the report would be an additional guide, and kept on.

Only those acquainted with the mountains of the West can realize what followed.

The sky suddenly became black. Hail, followed by snow, descended in terrific sheets. The trails almost immediately became obliterated; and forthwith I found myself alone on a wild mountain top, forty miles away from the Mammoth Hot Springs Hotel, with no idea how to return or proceed; added to the discomfort, that, owing to the heat, I had left my leather hunting-coat at the last camp, it being the only time that I had neglected to fasten it to my saddle-bow. In a few minutes my horse, "Old Reily," and I were enveloped in a mantle of snow.

Being high up, and landmarks in the shape of mountains being still visible, I recalled the

situation of the old camp, and kept on, hoping that my own men, seeing the state of things, had also gone back. Hungry, tired, and cold, mounted on a jaded horse which scarcely moved along, I finally reached the old camp; only to find it deserted, the fire gone out, not a morsel of food left, and only the three tent-poles lying on the ground to mark where my last night's house had stood.

Turning about, "Old Reily" again began the dangerous climb; my only hope now consisting in meeting on the hill the packers coming down; and if that was unsuccessful, at all events, getting back to the new camp, which I concluded my men must have reached by some other route, at which perhaps the packers, seeing the driving snow-storm, would consider it best to stay for the night, instead of venturing down.

Aided by the compass in discovering directions, hour after hour I urged "Old Reily" on; often having to dismount and walk, thereby keeping up circulation, and aiding the poor brute up steep places. Once we got out of our reckoning, only to mire in a bog, and finally struggle out again.

The snow now began to fall thicker, and even the hazy outlines of the distant mountains faded away. Being on top of a bald ridge, several

times I fruitlessly tried to find the way down into the ravine where the new camp lay.

At last we drew near; and when only two hundred yards off from where I knew the place lay, though the heavily draped firs concealed its view, I fired two shots, hoping to instantly hear an answer. No response: not a sound, save the rustling of the trees, the soft fall of ever-increasing flakes, the almost noiseless shuffle of the horse's hoofs over the powdery snow, and the wind howling among the craggy heights, which mockingly re-echoed my appeal.

A few seconds passed by; and now I knew myself to be within fifty yards of where I hoped to find friends, fire, and wood. Again I fired, hoping this time to arouse the camp. On the instant, as the report reverberated amongst the hills, the fierce growl of a bear startled me to the full consciousness of my loneliness; and the crackling and breaking of the brush told that Bruin, having tracked the fresh meat, and being discovered on the point of devouring portions of one of the quarters left for me, was in full retreat.

As the camp broke to view, a red fox ran across the snow, and a few Fremont-camp birds reluctantly fluttered away. And thus, with night near at hand, I found myself lost among the mountains of Wyoming, twenty miles from any

human habitation, and that a hut, the direction of which I knew lay somewhere across the ridges toward the north-west.

Knowing that my only hope of help lay in reaching the old camp, where some of the men might possibly be, I made the effort.

The old camp was five miles distant. The way, not easy to follow even when the sun shone, was now rendered tenfold more difficult by reason of the falling darkness.

Shaking the snow off my hunting-coat, which lay almost hidden by the recent fall, I cut a piece of raw meat from the hanging quarter, and placed it in my pocket, and wrote these words on a board, which I placed conspicuously against the trunk of the tree:—

In case you find this camp, one of you return immediately to the old camp, which I shall leave tomorrow in case no help arrives, and strike out for the Mammoth Hot Springs Hotel, which I believe is forty miles north-west from this spot. Have only three matches, which I fear are wet through, and no food except raw flesh.

E. P.

SEPT. 12, 5 o'clock.

Just at this crisis, I found a little piece of bread which had been left behind, lying in the snow near a little sapling, — about enough for three or four bites. Turning the weighty mat-

ter over in my mind, whether I should eat it now or wait till morning, I concluded to wait.

Poor old one-eyed Reily standing by me, his saddle already blanketed with snow, and his head bowed down to the ground, looked the picture of despair. As I once more began to lead the poor beast up the side of the cañon to get to the bald crest where I might get the lay of the land, the poor old fellow plainly showed that he was on his last legs: his knees shook, and he seemed at every step on the point of lying down. Realizing that every thing depended on reaching the old camp, where I supposed that some one of the four men must have returned, I drew the crust from my pocket, and, holding it front of his nose, tantalized him until we reached the top. Arriving there, I had not the heart to deprive him: so dividing the small piece with him, once more we attempted the return.

This bald crest had only two points of descent possible for a horse,—one the little trail by which I had just reached the summit, and secondly a descent on its other slope.

The snowflakes at this moment became thicker than ever. Round and round we wheeled. My hands became nearly too numb to guide the horse, and it seemed as if we should never reach the place of descent. We could hardly

see twenty feet ahead ; all sides looked perpendicular ; and, although up at this great altitude, not a glimpse could I catch of the surrounding country. The bare ridge was about one mile in circumference, and my former horse's-tracks had long ago been obliterated. At last I recognized a curiously twisted fir, and saw that I had been merely making a circle.

In despair, knowing that at this altitude without fire the morning would find me frozen, strangely there came to my mind these words of Tennyson,—

“ More things are wrought by prayer
Than this world dreams of ; ”

and I earnestly prayed that for one moment the storm might abate, and allow me a glimpse of where I was.

Hardly had I uttered the words, when one of the most striking incidents of my life took place. It may have been a mere coincidence ; but I was so impressed with the occurrence, that I could but feel that the act which the memory of Tennyson's lines prompted had something to do with the phenomenon which so quickly followed. Suddenly the wind lulled ; the snow ceased falling ; the heavy shrouds of mist which hung over the valley and mountain tops lifted ; and low in the west the declining sun, having but brief time

of light, shone brightly. The huge lone ranges, as far as the eye could reach, sparkled in their new white robes; and the winding stream, near which I knew the old camp lay, seemed but a mile distant. Even the tired old horse raised his head as if encouraged with new life. I soon found the hitherto hidden descent, and quickly gained the lower ridge, the gradual slope of which I knew would bring me back to camp.

For full thirty minutes the sky remained clear, with the exception of large fleecy clouds driving across its face; then, as suddenly, the wind swept through the valleys, and all became dark and threatening as before. Near the old camp, a few grouse whirred off, started up by the horse; and a blacktail trotted across our road.

On arriving, by the remaining glimpses of light, I found the camp had been unmolested during my absence, save that a fox hurried away from a half-eaten stale fish which my men had left behind.

Perhaps the relation of this incident will be regarded as evidence of my superstition; but I state it just as it occurred, and leave my readers to their several judgments.

Finding that I must pass the night as best I could, I first fired eight shots in the hope of getting an answer, the result being as fruitless as before. Then unsaddling "Old Reily," I

fastened him by the bridle round the base of a small quaking-asp, thus giving him a chance to nibble the little he could by scraping aside the snow.

Now came the important crisis: the matches, were they wet, or dry?

The snow had turned to a fine, drizzling rain: so the greatest caution had to be used. Getting some small logs, the dryest which I could find, I slivered some chips, and tried my first match. For one instant it flickered, gave one spasmodic twitch, and then puffed out; number two did likewise; and now all depended on my third and last hope. Lighting it, I carefully held it inside of my hat, and watched its course. It flickered, burned low, and at last blazed out with full yellow flame. Approaching close to my chips, I applied the light; and, as if in spite, at this very instant came a rush of wind, and nothing remained in my hand but a charred stump, and all was dark again.

Nothing remained but to wait till morning. So, taking the little piece of saddle-blanket, I wrapped it round my head and shoulders, sat down on the lee side of a bowlder, covered my feet with the saddle, and shivered.

It was pitch dark. For one instant I caught sight of the moon, and then all turned to night. To add to my discomfiture, I had cut my thumb

nearly to the bone while attempting to whittle some chips for kindling ; and the blood was perpetually oozing out, appearing reluctant to ever cease.

The length of that night seemed interminable, the only sound being the crunching of the horse. Once I heard a far-off noise like the howling of wolves, which, on coming nearer and nearer, proved to be a large flock of geese passing over my head. About midnight the sky cleared sufficiently for me to see the ground, and frighten off a couple of cayutes snarling at a distance. About two A.M. some jack-rabbits hopped into camp, rising on their hind-legs, and vanished on the instant. All night I either paced round the horse, warming my hands under his mane, or lay huddled on the ground crouched up against the rocks.

About four A.M. a few streaks of light appeared in the east, and I began to get ready to start. The pheasant killed on the previous day still hung to my saddle ; and I decided, if all else failed, to eat it raw.

Finding a piece of cardboard, I wrote on it the following words : —

“Off in the hope of reaching Mammoth Hot Springs. Follow immediately. No food, no matches. Horse played out.”

Tearing my handkerchief into strips, I tied them into a line, fastened one end to a branch and the other to the rolled-up paper; placing the tent-poles against the tree as indicators. Mounting, I started off on my forty-mile ride, which, though not much on a good road with a fresh horse, is something when alone among the mountains, weak from hunger, a horse nearly starved, and with no road to follow save a game-trail, towards which I should have several miles to travel before reaching.

On we went, wading streams, and crossing bog-lands, three times being led astray by fresh elk-tracks, the extra exertion forcing me to eat a piece of the raw buffalo-meat which was still in my pocket. At last, by accident, we came upon the longed-for trail; and, the snow having cleared away, I saw the marks of fresh horse-tracks, which I knew must have been made the day before.

Still onward we went, fording two streams, into one of which the old horse fell, wetting me all over; but what mattered that? I was safe, feeling, that, even if the poor *cayuse* died, I had strength enough to reach the Cook's City road, on which there would be a chance of meeting some one from whom I could buy food.

Finally, after some hours of riding and walking, I reached the cabin near Baronett's Bridge.

Every thing was deserted, though the iron kettle showed signs of having lately been on a fire. Loosing "Old Reily," I watched him for a second, and felt hopeful, on observing him try to nibble, that he would pull through. Crossing the open threshold of the hut, a couple of rats scampered over the floor, frightened away from some remnants of bread and cheese which the last diner had left behind on the table. Only the hungry can really appreciate food; and these few morsels, to a man who had not eaten for two days and a night, proved a banquet.

Presently a young fellow entered, who had charge of the bridge in the absence of the owner; and we soon had some tea and cooked beans. A drummer for a whiskey-house came along, and a glass of Kentucky's wine soon put me all right. Remembering the pheasant which still hung to my saddle, I gave it as my sole little offering; and they soon made a meal of it, while I, lying on the floor, took a short nap.

Towards evening a man whom I had met before came over the bridge on a buckboard; and, my horse being too tired to go the remaining fifteen miles to the springs, my acquaintance kindly offered to give me a lift, another man proposing to ride "Old Reily" in, the next morning. After seeing that the old horse had a good feed of oats, we started on the buckboard, and reached the hotel that night.

After chatting with father, and enjoying a meal sitting at a real table, I got into a bed,— a luxury which I had not enjoyed for a whole month. But my sleep was not dreamless. I imagined myself lost far away in the snow-mountains and strange ghostly forests, imploring and encouraging my old starved horse to go on, and wondering why the ground was so warm and dry in the cold wet snow; and, hearing the howling winds,—

“Starting, I waked, and for a season after,
Could not believe but that I was” (not in the place of
Clarence, but in the Goblin Mountains).

The next day my horse came in, and looked gratefully as I gave him plenty of oats, and enjoyed seeing him eat. Poor old horse! with whom, when both were exhausted, I divided the last bit of crust, the warmth of whose body saved me from freezing to death that awful night in the mountains. I now better understand why those who have survived great perils together become deeply attached. Adieu, a sorry adieu, to poor “Old Reily”! I sold him to a man who promised to treat him kindly.

Two days later my men, with the rest of the horses, returned, and told their story. As I had supposed, they lost the trail in attempting to follow me, as did the packers also, and thus

separated. They wandered far away, and were out all night ; but as they had food and fire, with plenty of blankets, and all the comforts of the camp, they contemplated *my* hopeless condition with much fortitude. They had fired signal-guns, but in that howling tempest a rifle could not be heard five rods. Early the next morning they found the old camp, and read my notice, then started for the hotel, which they reached in two days.

When I parted with my father at the Great Falls, he gave me a pocket-compass, saying, "You may need it, my boy." But for that little instrument, I should never have told this hunting-story.

"Big-horn" ascend to the highest points possible, and when startled never look up, but expect danger from below. Their color, purplish gray, varies in shade according to the time of year ; but the hair is too brittle and crisp to be of service, being apt very soon to break and wear out.

To the inexperienced, the animals so resemble in color the rocks among which they are to be found, that much quickness of observation is necessary to distinguish them from the rocks. They lie so quietly concealed under crags within a few feet of the hunter, never stirring until

their pursuer has got by, that we found it a good expedient to throw pebbles down the declivities, and thus arouse them from their hiding-places. In the early morning, before going lower to feed, as they stand like sentinels on the apex of some huge granite tower, with their horns cut like Grecian cameos against the sky, no better instance could be presented to mark the isolation and loneliness of the region in which these sturdy animals dwell. Lack of speed is compensated for by their agility in climbing; and, knowing this, they generally live among the most lofty peaks of the mountains. Their hind-quarters, being white, give them, when in flight, somewhat the appearance of a band of antelopes; and I have seen some mats, half white, half purple, made from their skins.

In winter "big-horn" occasionally descend to lower regions in search of food, the snow driving them from their securer retreats. A field-glass is absolutely necessary for hunting them, by the help of which much time is saved in scaling peaks and stalking. I used, while hunting elk and big game, a .50-calibre Winchester rifle, pistol grip, carrying six balls, five being in the reserve barrel, and burning ninety-five grains of powder. I used both solid and expansive balls, but found the solid much the better, their penetration being much more certain.

The elk and sheep horns I had packed and sent home.

To sum up my month's camping-tour, I may say, that, with the exception of my lone night's experience above narrated, hunting in the bracing air among the high mountains of Wyoming is one of the most enjoyable reminiscences of my life. One's appetite is splendid, sleep perfect, and general health excellent,—without which blessings what man can be happy? and having which, many luxuries of civilization can be dispensed with. I should like to hunt again in the same region.

CHAPTER XXVII.

BACK AT MAMMOTH SPRINGS HOTEL.—THE SHOOT- ING OF A WOMAN.

Sept. 16. — We were at the hotel. Towards nightfall a little boy came riding up to the hotel, on horseback, asking for the doctor; requesting him to attend a woman who had been shot in the head by her *amant*, at a small settlement called Gardiner, some four miles distant.

It was growing dark, the road was lonely, and the doctor asked me to go with him. We dashed off behind a good pair of American horses, and soon arrived at the scene of the late tragedy, — a small wooden hut, isolated in a dreary waste, surrounded by sage-brush.

The utter recklessness with which the Westerner regards life was again shown here. Entering the dim-lighted room, we found the woman, young, pretty, with dark hair and eyes, lying on the bed. The flame of a candle, thrown full on the side of her head, revealed two bullet-holes covered by hair clotted with blood.

The would-be murderer — a handsome fel-

low, gambler and saloon-keeper — sat on the edge of the bed; his face having a sort of puzzled, dare-devil expression, as if in doubt what should be his next move. Occasionally he swaggered about the room, or wiped his forehead with a flaming-red pocket bandanna, which he stuck in his belt.

After cutting away the hair, and probing the wound, the ball — that of a thirty-two calibre — was found to have slightly depressed the skull three inches behind the ear, coming out at the back of the head. If the ball had been a forty-four, death would in all probability have ensued immediately. The doctor, after giving her some morphine, and applying an ordinary compress bandage, and giving directions that she should take no food beyond tea and toast, left; and we reached the hotel about nine P.M.

The next morning (Sept. 27) we started for Livingston. We had to go about six miles to reach the station; and, passing through the little village of Gardiner before mentioned, the driver stopped to water his horses. A remarkably fine-looking man came to the spring with a bucket, and my father asked him if the woman who was shot the day before was dead.

"No," he cheerfully replied. "All the devils in hell couldn't kill her."

I at once recognized in him the very man

who had committed the deed. But the man was never even arrested, nor his crime inquired into. In Montana, and all through that region, if a man steals a horse he is pretty sure to be hanged: if he kills a man in a brawl, or a woman for infidelity, he is quite sure to be let alone.

In the same car which we took for Livingston, there were two horse-thieves in the sheriff's charge.

At the Yellowstone, and along the route, we saw a good many Englishmen, several of whom had known my father when he was Minister to England. Generally they were pleasant, cultivated men; but some of them, assuming "swell" manners to which they were not bred, were ludicrously awkward in their new *rôle*. But they revealed large capacity for being disagreeable; wearing at all times (except when they happened to forget) a furtive and defiant look, as if they suspected that some one would challenge their pretensions. These found the West "a hard road to travel."

CHAPTER XXVIII.

LIVINGSTON TO ST. PAUL.

WE realized, on seeing Livingston, the rapidity with which a Western town may rise. Here a town of two hundred houses, well filled, has sprung up within ten months, looking very extemporaneous of course.

On the 18th of September we left Livingston in the afternoon, on our way to St. Paul. We were surprised to find so much fertile land along the great Northern Pacific road. When these lands are settled, as they will be, the business of the road will be enormous: it is only a question of time. Over this well-made road, from Livingston to St. Paul, the journey is very easy. The Pullman cars and the dining accommodations are excellent.

On the evening of the 20th we reached the well-built, thriving city of St. Paul, where we met Gov. Ramsay, senator of the United States.

For a thousand courtesies, which have made our Western journeyings so pleasant, we are largely indebted to Mr. Henry Villard, the presi-

dent of the Northern Pacific road, and of the companies with which it is connected.

The Act of Congress, creating the Northern Pacific Railroad Company, was approved July 2, 1864.

The first section of the Act contains the following:—

“And said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph line, with the appurtenances, namely, beginning at a point on Lake Superior, in the State of Minnesota or Wisconsin; thence westerly by the most eligible railroad route, as shall be determined by said company, within the territory of the United States, on a line north of the forty-fifth degree of latitude, to some point on Puget Sound,¹ with a branch,² via the valley of the Columbia River, to a point at or near Portland, in the State of Oregon.”

The grant was,—

“Every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad, whenever it passes through any State,

¹ “Puget Sound,” construed to mean all waters connected with Straits of Fuca by Act of March 1, 1869.

² Portland Branch, extended to Puget Sound, April 13, 1869.

and whenever, on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption, or other claims or rights, at the time the line of said road is definitely fixed, and a plat thereof filed in the office of the Commissioner of the General Land Office; and whenever, prior to said time, any of said sections, or parts of sections, shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections."

This grant of many millions of acres to the railroad caused the road to be built, and thereby made the half which remained to the government worth a thousand times more than the whole was before the road was constructed. The work was completed early in September, 1883.

This great railroad, starting from Duluth on Lake Superior, and from St. Paul on the Mississippi River, makes junction at Brainerd, 114 miles from Duluth and 136 miles from St. Paul. Portland, Or., is 1,889 miles from Duluth, and 1,911 miles from St. Paul.

At St. Paul we saw a Chinaman who spoke English pretty well, and we tried to learn from

him why it was that the Chinese left their hopelessly ill to die alone. He would not talk upon the subject, or give the least information; but he did not deny the custom, or expressly admit it.

CHAPTER XXIX.

CHICAGO AGAIN.

ON the 24th of September we reached Chicago again, and met Lord Coleridge, whom my father had known in England. He was much interested in Chicago, as every stranger is. It is a city of wonderful enterprise, and unparalleled in the rapidity of its growth. Its hotels, commercial blocks, and public buildings are very fine. The Hall of Justice is quite as imposing as Somerset House in London.

We went over the great exhibition of engines, and viewed the latest railroad contrivances for facilitating shunting, coupling, and switching, to say nothing of Mr. Pullman's latest essays for comfort and convenience in his cars, made at the Pullman manufacturing village, some few miles from Chicago. We saw the "Samson," in which the Prince of Wales once rode, one of the oldest engines in existence. It was built in 1838, in England, for a short line in Nova Scotia. There was also a rickety old contrivance built in 1835; the "John Bull," made in

England in 1831; the "Arabian," in 1834. Nearly side by side was—as is generally the case in all shows—the great extreme, a Shaw locomotive, vast in height, built during the last year, having made a mile in forty-seven seconds.

If from 1783 to 1883 we have seen such marvels, what, with increased facilities for invention, can we not hope for in the next century? Shall we not navigate the air, skim mountains, and use a means of destruction akin to "*vril*," which Bulwer speaks of in his "Coming Race"?

Went over the Calumet Club, which certainly is very beautiful.

Chicago, from its geographic position its natural advantages for commerce, and from the marvellous enterprise of its citizens, is destined to become one of the great cities of the earth. Its wealth is too rapid, and its extravagance too great, for its own good.

We found that the people of Chicago take their fashions from New York (as we take ours from England), in which they have lately had eminent success. A young man who had seen polo at Newport wished to introduce the fashionable game in Chicago; and, selecting nine other youths, they proclaimed the day when the tournament would take place. The fashion, on horseback, in victorias, landaus, and with four-in-hand, repaired to the field. These handsome

young men, gorgeous in their tightly fitting togs, mounted their ten ponies,—each of regulation height,—took their places, and waited the signal to charge. The spectators looked on in breathless suspense. The signal was given—and, as if by preconcerted arrangement among those mustangs, each bucked his man into the air and over his head! The mallets were all dropped; and without a rider every pony ran away, and some of them were not caught for two days after. Even in polo-playing, Chicago can beat the world.

CHAPTER XXX.

HOME AGAIN.

HERE, at the end of September, we are back in New York all safe and well, after an interesting journey, in which we saw every variety of scenery and life. And now, as I sit on the veranda of our country-house on the Hudson, and look across the river to West Point, and over the Newburgh Bay towards the Catskill Mountains, I feel that I have seen nothing more beautiful, and fully realize that "there is no place like home."

NOTE. — On our journey, discussions frequently arose touching the questions of latitude and longitude, distances, the difference in time, the difference between a geographic and an English mile, and as to how the length of a nautical mile was determined, and what was meant by the metric system.

These questions are answered in the next chapter.

CHAPTER XXXI.

CHAPTER NOT TO BE READ.

THIS dry chapter of dates, distances, differences in time, etc., should be omitted by the general reader. It contains information quite elementary; familiar to the well-instructed school-boy, and mostly forgotten by mature people.

An imaginary line drawn around the earth, equidistant at every point from the poles, and dividing the globe into two hemispheres, — the north and the south, — is called the *equator*.

This great equatorial circle is divided into three hundred and sixty degrees; each degree, into sixty minutes; each minute, into sixty seconds.

A minute of the degree is a geographic or nautical mile.

The nautical mile differs in length from our English mile: the nautical mile is the length of a sixtieth part of a degree of the equator.

The English mile, which came to us by inheritance, has no natural basis whatever. It is purely arbitrary, — *created* by statute 35 of

Queen Elizabeth, making 320 rods, or 5,280 feet, a mile: hence it is often called a "statute mile." The Roman mile was 438 feet shorter than the English mile. The German mile is $5\frac{1}{4}$ English miles. The German short mile is about four times the English mile. The Danish and Prussian mile each is 4.7 English miles. The Swedish mile is 6.648 English miles. The French kilomètre is but 0.6213 of an English mile. Sixty nautical miles are generally stated to equal $69\frac{1}{2}$ English miles, but this is not strictly accurate. All geographic calculations are made in nautical miles: hence the circumference of the earth is but 21,600 nautical miles, — that is, $24,904\frac{5}{8}$ miles English.

Latitude is the distance north or south from the equator, and is reckoned in degrees. A *parallel* of latitude is a line drawn around the globe, equidistant at every point from the equator. A *meridian* is a circle drawn around the globe, passing through the poles, and cutting the equator at right angles. *Latitude* is reckoned from the equator, either north or south. *Longitude* is reckoned from some meridian east or west. Any place may be selected as the meridian from which to depart, and differs in different countries. In France, Paris is taken; in England, the Royal Observatory at Green-

wich; in America, Greenwich is generally adopted. Both in navigation and geography, the nautical mile is used, which is a minute of an equatorial degree. Several astronomers have measured the degree, but no two make it the same exact length. Of course a nautical mile is the sixtieth part of an equatorial degree; but how many rods or English feet equal the sixtieth part of the degree? The English compute it at 6,087.84 feet; the Americans, at 6,086 feet; but different authors vary somewhat. It is sufficiently accurate to say that a nautical mile is 807 feet longer than an English mile.

Whenever the sun in his course crosses a given meridian, it is *mid-day* along that meridian. The sun passes over one degree in four minutes of time; it takes sixty minutes of time to pass over fifteen degrees of space.

New York is 74° west longitude. A place which is 89° west will be reached just one hour later. Four minutes of time are required to pass over each degree, and four seconds of time to pass each second of a degree.

Having the longitude, to find the time.—Multiply the degrees, minutes, and seconds by 4, and the product is the time.

New York is 74° west longitude.

$74 \times 4 = 296$ minutes, which equals 4 hours and 56 minutes.

Having the time, to find the longitude. —

Reduce the hours to minutes; and, if there are seconds also, divide the minutes and seconds by 4.

San Francisco is 8 hours, 9 minutes, and 44 seconds slow, Greenwich time: that is, 489 minutes 44 seconds; divided by 4 = $122^{\circ} 26'$ west longitude.

A watch, taking the true time at New York, as every one knows, will be too slow if carried east, and too fast if carried west; but its gain or loss does not depend upon the miles travelled, but upon the degrees of longitude reached. In going *towards* the east or west, you may travel a thousand miles, and not gain or lose so much in time as you would if going due east or west only fifty miles on a parallel of latitude. The difference in time depends wholly upon the difference in meridian. If you travel due west nine hundred geographic miles, you will gain one hour in time; but in reaching the same point you may travel two thousand miles, and gain no more in time.

The following table contains the length of a degree of longitude for each degree of latitude: —

o lat.	Miles.	o lat.	Miles.	o lat.	Miles.	o lat.	Miles.	o lat.	Miles.	o lat.	Miles.
1	59.99	16	57.67	31	51.43	46	41.68	61	29.09	76	14.52
2	59.96	17	57.38	32	50.88	47	40.92	62	28.17	77	13.50
3	59.92	18	57.06	33	50.32	48	40.15	63	27.24	78	12.47
4	59.85	19	56.73	34	49.74	49	39.36	64	26.30	79	11.45
5	59.77	20	56.38	35	49.15	50	38.57	65	25.36	80	10.42
6	59.67	21	56.01	36	48.54	51	37.76	66	24.40	81	9.39
7	59.55	22	55.63	37	47.92	52	36.94	67	23.44	82	8.35
8	59.42	23	55.23	38	47.28	53	36.11	68	22.48	83	7.31
9	59.26	24	54.81	39	46.63	54	35.27	69	21.50	84	6.27
10	59.08	25	54.38	40	45.96	55	34.41	70	20.52	85	5.23
11	58.89	26	53.93	41	45.28	56	33.55	71	19.53	86	4.19
12	58.68	27	53.46	42	44.59	57	32.68	72	18.54	87	3.14
13	58.46	28	52.97	43	43.88	58	31.80	73	17.54	88	2.09
14	58.22	29	52.47	44	43.16	59	30.90	74	16.54	89	1.05
15	57.95	30	51.96	45	42.43	60	30.00	75	15.53	90	0.00

Gerard Mercator was born in the Netherlands in 1512. He published a chart in 1556, which some forty years later came into general use in navigation. In the Mercator charts and maps, the earth is supposed to be a sphere; yet the meridians, instead of converging towards the poles, as they do on the globe, are drawn *parallel* to each other. The distance between the meridians, therefore, is everywhere too great, except at the equator. To compensate for this, the degrees of *latitude* are proportionally enlarged. On the artificial globe, and on maps taken therefrom, the parallels of latitude are drawn at equal distances; but on Mercator's chart the distances between the parallels increase from the equator to the poles, so as everywhere

to have the same ratio to the distances between the meridians which they have on the globe. For example, in latitude 60° the distance between the meridians is but *half* what it is at the equator: hence a degree of latitude is there represented as *twice* as great as at the equator.

A map constructed upon the principles of "Mercator's Projection" presents the entire surface of the earth upon a single plane, which is a rectangular parallelogram.

The maps and charts in this book are constructed upon Mercator's plan; and thus Alaska is shown in its true relation to British Columbia, to the United States, and to Asia.

Places in Europe and America of nearly the same Latitude.

Paris $48^\circ 50'$ N.	Victoria . . . $48^\circ 25\frac{1}{2}'$ N.
Madrid $40^\circ 25'$	New York . . . $40^\circ 42'$
Naples $40^\circ 51'$	Montauk Point. $40^\circ 04'$
Rome $41^\circ 55'$	{ Newport . . . $41^\circ 39'$
	{ Chicago . . . $41^\circ 37'$
Cannes $43^\circ 31'$	Boston $42^\circ 41'$
	(Mexico $19^\circ 20'$)
Balmoral . . . $57^\circ 03'$	{ Sitka (Alaska) . $57^\circ 30'$
Aberdeen . . . $57^\circ 09'$	
North Cape of Norway . . . $71^\circ 0'$	Pt. Barrow (Alaska) . . . $71^\circ 13'$

When it is midnight at Canton, it is midday at New York.

Miles.

14. 52
13. 50
12. 47
11. 45
10. 42

9. 39
8. 35
7. 31
6. 27
5. 23

4. 19
3. 14
2. 09
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Distances from New York to San Francisco and Places intermediate, by Union and Central Pacific.

New York to Chicago	913	miles.
Chicago to Omaha	501	"
Omaha to Sherman	549	"
Omaha to Continental Divide	737	"
" to Thousand-Mile Tree	1,000	"
" to Ogden	1,032	"
" to Wadsworth	1,587	"
" to California line	1,633	"
" to Summit	1,667	"
" to Sacramento	1,776	"
Sacramento to San Francisco	91	"
New York to San Francisco	3,281	"

Distances from New York to Portland and to Astoria by Northern Pacific.

New York to Chicago	913	miles.
Chicago to St. Paul	409	"
		1,322 miles.
St. Paul to Minneapolis	10	miles.
" to Brainard	136	"
" to Fargo	274	"
" to Bismarck	469	"
" to Mandan	474	"
" to Glendive	690	"
" to Billings	915	"
" to Livingston	1,030	"
" to Bozeman	1,055	"
" to Helena	1,154	"
" to Portland	1,911	"
		3,233 miles.
Portland to Astoria, by boat	120	"
* New York to Astoria	3,353	miles.

The Metric System of lengths, weights, and measures of capacity, etc., introduced into France many years ago, and since adopted by many of the Continental governments, is based upon the idea of an unchangeable natural standard, the multiples and subdivisions of which follow in decimal progression.

By measuring an arc of the meridian, the distance from the equator to the pole — measured as along the surface of still water — was calculated: this was divided into ten million parts; and one of these parts was taken for the unit of length, and called a *metre*, from the Greek word *μετρον* (a measure).

The unit of *capacity*, both dry and liquid, is called a *litre*, and is a cubic measure of which the side is a tenth part of the metre.

The weight of the volume of distilled water at the greatest density (39°.29 Fah.) which this cubic measure can contain is called a *kilogram*; a thousandth part of which is made the unit of weight, and denominated a *gram*.

The units of length, superficies, solidity, and weight, are all correlative; two data only being used, — the metre, and the weight of the cube of water.

The multiples of these measures, proceeding in decimal progression, are marked by the prefixes, *deca*, *hecta*, *kilo*, *myria*, taken from the

Greek numerals; and the subdivisions following the same order, by *deci*, *centi*, *milli*, from the Latin numerals.

By careful measurement the metre was found to be 39.3707904 English inches; and standards of the metre and of the kilogram were constructed, and deposited among the archives of France, where they remain.

But in American measure the *metre* is 39.36850535 inches: the American standard yard being longer than the English by 0.00087 inch.

A foot as established by law in the United States equals $\frac{12}{39.1012}$ of the length of a seconds-pendulum in the City Hall of the city of New York.

The *Are* is the unit of surface in the metric system, and contains 100 square *metres*, which equal 119.6 square yards.

The *Litre* is the unit of the measures of capacity, both dry and liquid, and is the volume of a cubic decimetre containing 1.0567 liquid quarts.

The *Kilogram* equals in weight 2.2046 pounds.

The *Gram* equals in weight 15.432 grains avoirdupois.

It is a decimal system, wonderful in its simplicity, and of unvarying perfection; under it there is but one kind of weight or measure or

standard of capacity, and all calculations are made in the most easy manner.

It was adopted in France in 1801; it was legalized in England in 1844, and also in the United States two years later. But neither in England nor America has its adoption been made compulsory, nor has its use become general.